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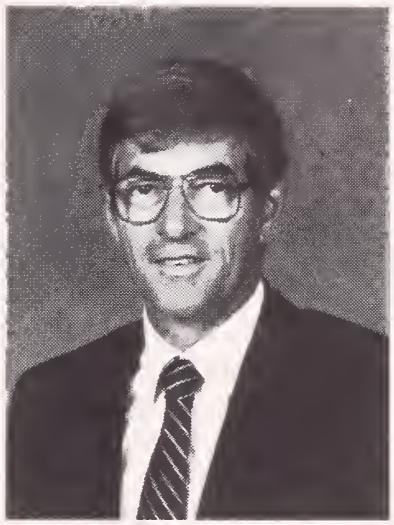

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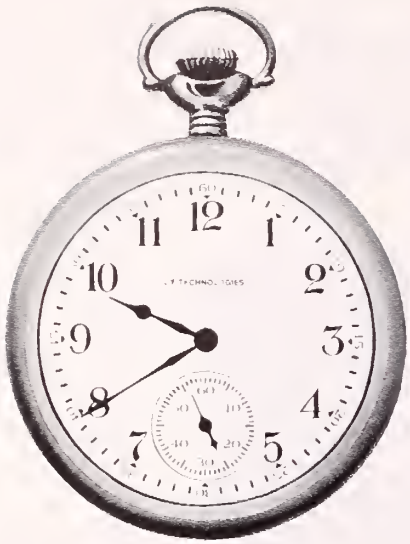

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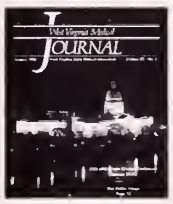

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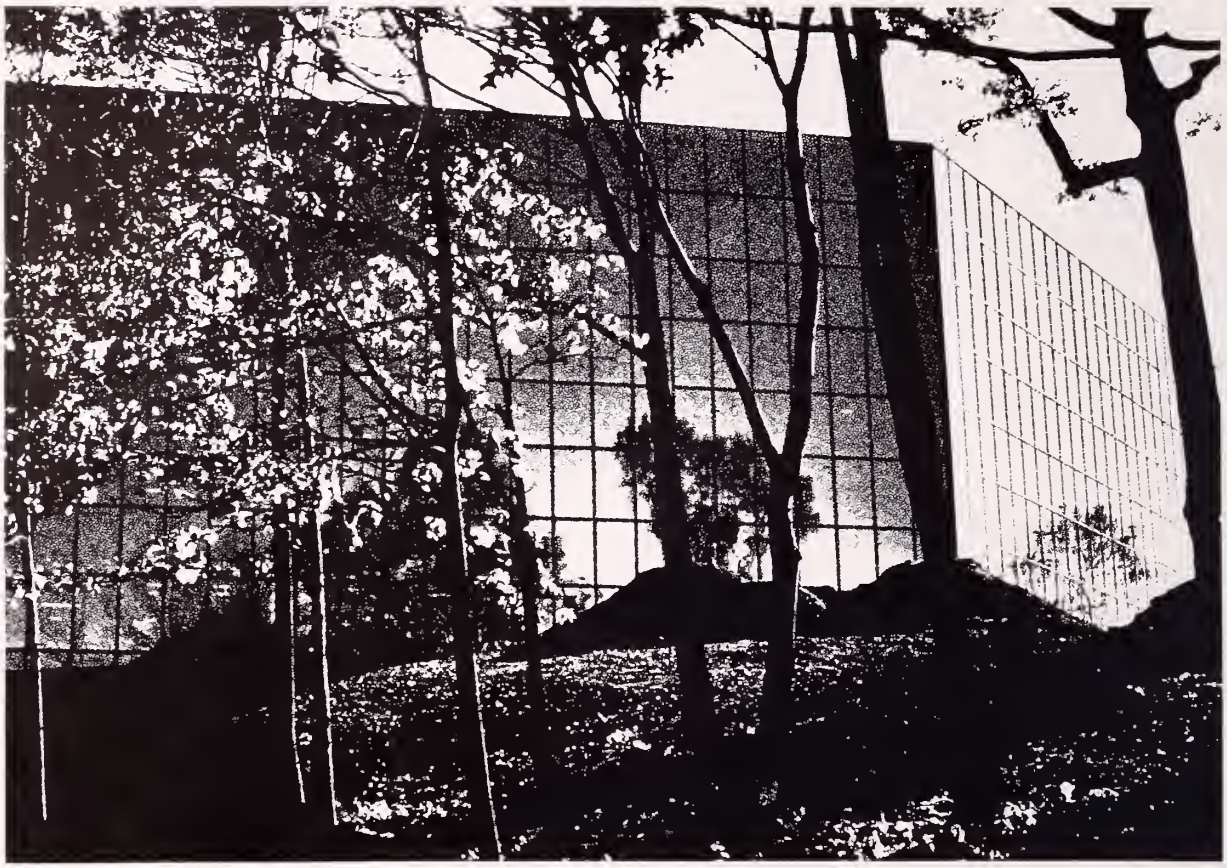

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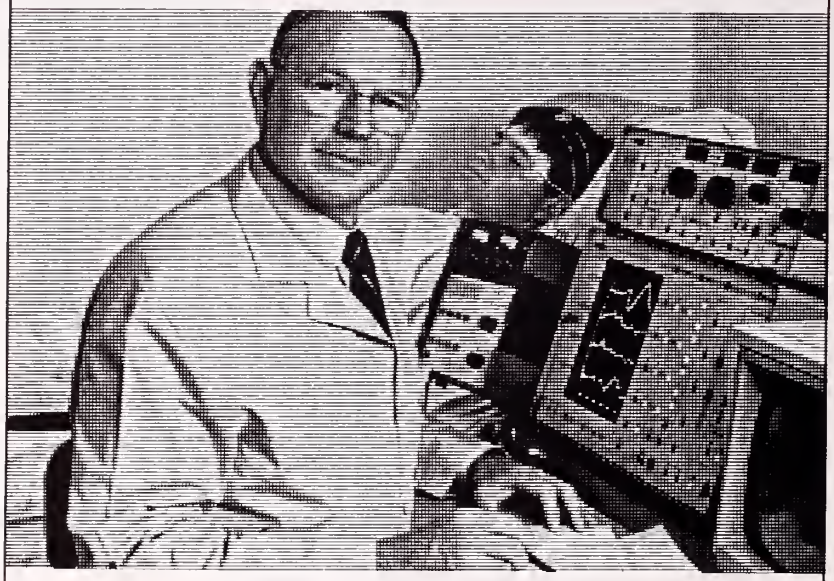

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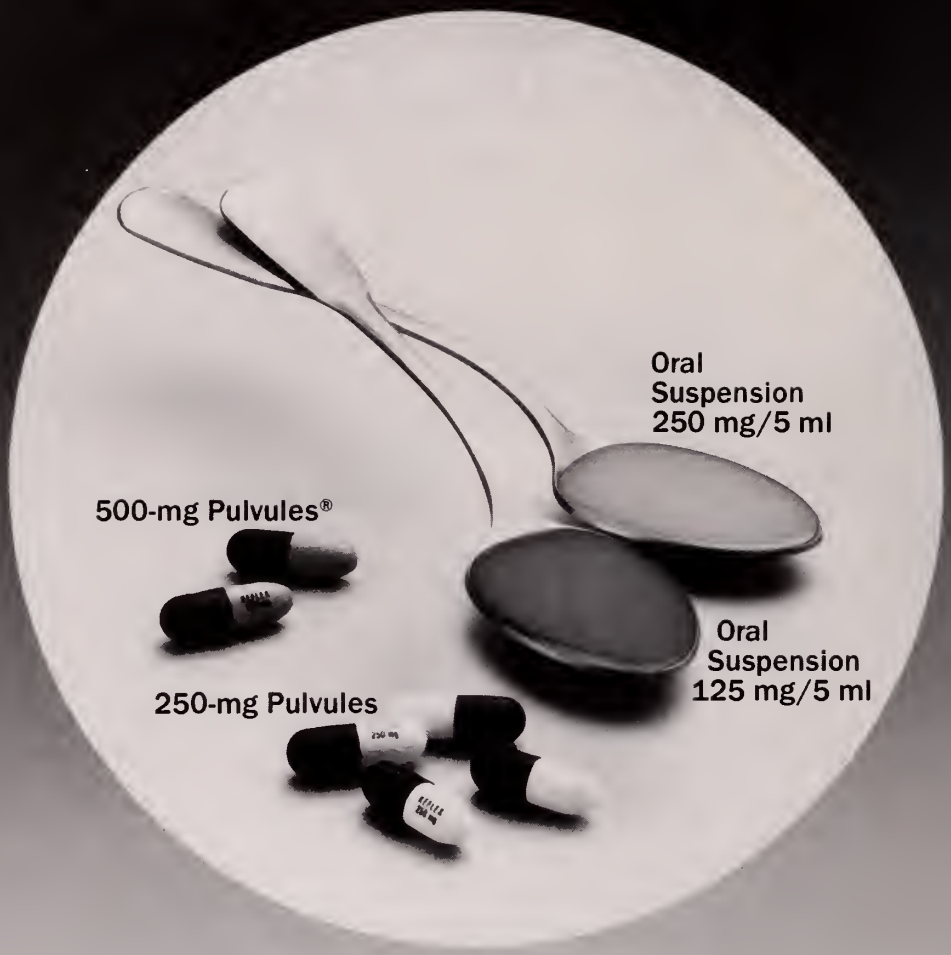

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Scientific Newsfront

Review Article

Prophylactic Antibiotics In Major Surgery

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Introduction

During the last 30 years much has been learned concerning the appropriate use of antibiotics in the prevention of perioperative infections. In many different areas, well controlled, prospective, blinded studies have defined clinical situations in which prophylactic antibiotics have been of benefit and those situations in which antibiotics offer little or no benefit. Despite all we do know, there is still great confusion concerning the appropriate use of prophylactic antibiotics in surgery. In reviewing this subject it is important to focus on information provided by carefully controlled prospective studies.

General Principles

As in all medical decision making, it is important to weigh carefully the potential benefits versus the risks of using prophylactic antibiotics. The potential or sought-after benefits relate to prevention of infection and reduction in the resulting morbidity and mortality. The risks, all too often minimized, include allergic and toxic reactions, bacterial and fungal superinfections, and the emergence of resistant microbes. The latter two effects — superinfection and resistance, often are not immediately recognized as complications of antibiotic usage. In addition, because good surgical techniques have reduced infections significantly, antibiotics have received undue credit for their role in preventing postoperative infection. Thus, caution is advised whenever evaluating the benefits of prophylactic antibiotics.

In developing guidelines for the use of antibiotic prophylaxis in surgery, certain important facts must be understood. First, the development of operative site infections is related to the size of the bacterial inoculum, the pathogenicity of these organisms, the presence of tissue and tissue fluids supportive of bacterial growth, and the ability of the host to resist infection.[1,2,3] A great deal can be done to minimize those risk factors associated with infection. Despite the greatest care possible, there will arise those circumstances in which the conditions are such that the risk of infection is great. It is for these procedures that prophylactic antibiotics may be beneficial. An example of such a procedure is that of vaginal hysterectomy. The use of prophylactic antibiotics in patients undergoing vaginal hysterectomy has reduced the rate of serious pelvic infection from 30-40 per cent to 2-5 per cent.[1,4]

When Needed, Procedures for Use:

In general, in clean surgery, antibiotic prophylaxis is unnecessary unless a prosthesis or foreign body has been implanted, unless there is extensive tissue dissection associated with impaired blood supply, or if there is an immune-compromised host.[3] In the above circumstances healing is impaired and fewer organisms are required to produce an infection. In addition, in the presence of the above factors, especially prosthetic implants and the immune-compromised host, infection is often catastrophic.

The selection, dosage and site of administration are critical factors in antibiotic prophylaxis.[5] The antibiotic used must be effective against those microorganisms which usually cause infections in the operative situation. An understanding of the common infectious agents for various surgical sites is critical for antibiotic selection. Particular patterns of anti-

TABLE 1
Organisms Associated With Infections at Specific Operative Sites

Site	
Gastrointestinal	Streptococci, B. melaninogenicus,
Oral & Esophageal	Peptostreptococci, Fusobacterium sp.
Gastroduodenal & Colon	Enteric gram negatives, B. fragilis and Peptostreptococci, Bacteroides Sp. Streptococci, Clostridium sp.
Biliary Tract	Enteric gram negatives, Group B Streptococci, Clostridium sp.
Gynecologic	Enteric gram negatives, Group B Streptococci, Group D Streptococci Bacteroides sp, Peptostreptococci Staphylococci.
Orthopedic	Staphylococci, especially S. aureus
Thoracic - noncardiac	S pneumoniae, Staphylococci, Streptococci, H influenzae, Pseudomonas aeruginosa.
Cardiac	Staphylococci, Streptococci.
Urologic	Enteric gram negatives, Group D Streptococci.

biotic resistance at different hospitals must be used to assist in appropriate antibiotic selection. The organisms most commonly associated with infections at various sites are listed in Table 1.

Because high tissue concentrations are required at a specific time for prophylaxis, parenteral administration of antibiotics is preferred to the oral route. In addition, proper timing is critical: the antibiotic must be at the site of potential infection at the time microorganisms are introduced. The studies by Burke clearly demonstrated that a delay of even three hours in antibiotic administration negates the desired preventative role of these drugs.[6] In lengthy procedures, additional antibiotic administration may be required to maintain high tissue levels throughout the procedure. The exception to the above is the use of oral, poorly absorbable antibiotics 24 hours before colon surgery.

Administration of prophylactic antibiotics should be continued in most cases for no more than 24 hours following surgery. In some cases, with more extensive tissue destruction and contamination, up to 72 hours may be appropriate.[1,7] Beyond that point, antibiotic usage must be considered to be "treatment" of an existing infection and not prophylaxis. There is no evidence that the prolonged administration of prophylactic antibiotics is more effective or beneficial. In fact, the risks of superinfection and bacterial resistance greatly outweigh any potential benefit.

Antibiotic Prophylaxis in Head and Neck Surgery

Minor nasopharyngeal and otologic surgery do not require antibiotic prophylaxis. More extensive head and neck surgeries such as neck dissection, laryngectomy and glossectomy for cancer require antibiotic prophylaxis.[1,7,8] Clindamycin is generally considered the preferred choice to cover staphylococci, streptococci and anaerobic organisms. Cefoxitin also is a reasonable alternative. Many authors also recommend the addition of an aminoglycoside such as gentamicin. Coverage should not extend beyond 24 hours.

Gastroduodenal Surgery

It is generally agreed that short-term antibiotic prophylaxis is beneficial in patients undergoing surgery for bleeding or obstructing duodenal ulcer or gastric ulcer or for malignancy.[1,5,9,10] Chronic non-obstructing duodenal ulcer requires no antibiotic prophylaxis. The antibiotic agents of choice are cefazolin (a first-generation cephalosporin) or a penicillin-aminoglycoside combination.

Biliary Tract Surgery

A number of studies have identified the risk factors associated with the presence of bacteria in the bile in patients with chronic calculous cholecystitis.[1,5,10] Antibiotics prophylaxis should be instituted in patients undergoing surgery for chronic calculous cholecystitis if any one of the following are present: 1) there is previous biliary tract surgery, 2) the patient is over 70 years of age, 3) the surgery is an emergency operation, 4) jaundice is present, 5) chills or fever are present within one week of the surgery, 6) the operation is performed within one month of an attack of acute cholecystitis, and 7) the gram stain of the bile at surgery is positive for microorganisms. A bile sample should be sent to the lab for gram stain and culture at the start of the cholecystectomy. Results of the gram stain should be obtainable within 30 minutes and antibiotics started if the gram stain is positive.

Antibiotic selection for prophylaxis of biliary tract surgery should be either cefazolin or penicillin and an aminoglycoside. If on gram stain a gram-positive rod is identified, penicillin should be part of the initial antibiotic regimen to cover Clostridia sp. The total duration of prophylaxis should be no more than 24 hours.

Colorectal Surgery

The microorganisms of the colon represent not only the greatest concentration of bacteria per gram of tissue but also the greatest variety of bacteria in the body. It is estimated that aerobic organisms account for 10^6 to 10^8 organisms per gram of tissue and anaerobes 10^{10} to 10^{12} organisms.[1,5] The most frequently isolated organisms are E. coli and B. fragilis. Thus, the great concentrations of bacteria in the colon suggest that prophylactic antibiotics should be of value in preventing wound and intraabdominal infections. Indeed, there are a number of well-controlled studies which support the use of prophylactic antibiotics in colorectal surgery.[12,13,14]

The bowel prep is a well-established procedure useful in reducing postoperative infections. Mechanical preparation as well as oral antibiotic administration is recommended. The following method has been suggested by Nichols[5]:

Day 1. Low-residue diet, bisacodyl 5-10 mg orally at 6 P.M.

Day 2. Low-residue diet, magnesium sulfate 15 grams (30 cc) orally at 10 A.M., 2 P.M. and 6 P.M. Saline enemas until clear in evening.

Day 3. Clear-liquid diet with supplemental intravenous fluids as needed. Repeat magnesium sulfate as above (Day 2). Neomycin 1 gram p.o. and erythromycin base 1 gram p.o. at 1 P.M., 2 P.M. and 11 P.M. No enemas.

Day 4. Operation at 8 A.M.

The above regimen has proven to be highly effective in reducing septic complications and wound infections following colorectal surgery. Other oral antibiotic combinations have been used such as clindamycin and neomycin or kanamycin as well as metronidazole and neomycin. These have not consistently been proven to be any more effective than erythromycin base and neomycin. If metronidazole is to be used, it should be administered orally for two days prior to colorectal surgery.

The use of parenteral antibiotics in colorectal surgery is less well established.[13,14] It is certain, however, that parenteral antibiotics alone — without a bowel preparation — are significantly less effective than when used along with oral antibiotics and mechanical preparation. It appears that the addition of parenteral antibiotics

to bowel preparation adds little or no protection against postoperative infections. Despite this, however, many general surgeons continue to use a parenteral, first-generation cephalosporin such as cefazolin for the first 24 hours following elective colorectal surgery. The major indication for parenteral antibiotics in colorectal surgery is for the emergency colorectal operation. In these cases, gentamicin and clindamycin appear to be the most logical parenteral choices. Metronidazole may also be an acceptable choice instead of clindamycin but futher study is needed. Parenteral antibiotics should be started 30 minutes to one hour preoperatively and be administered for a total of 24 hours.

Appendectomy

In patients undergoing appendectomy, antibiotic prophylaxis is not routinely recommended except in the presence of a perforated or gangrenous appendix. In these patients cefoxitin or clindamycin and ampicillin or gentamicin are the regimens of choice. Antibiotics are generally continued for a longer period of time, from two to seven days depending upon clinical findings and course. Additional antibiotic prophylaxis is summarized in Table 2.

Timing of Antibiotics

Of greatest importance is the timing of antibiotics. All antibiotics should be administered within one hour prior to surgical opening. Additional intraoperative antibiotics may be required for longer procedures. In general, antibiotics need not be continued beyond 24 hours after the surgery. Finally, it must be emphasized that prophylactic antibiotics cannot replace good surgical techniques and antisepsis. The most effective tools for prevention of infection still lie in the hands of the surgeon.

TABLE 2

Antibiotic Prophylaxis by Surgical Procedure

Procedure	*Associated Risk Factors*	*Antibiotic Prophylaxis*
Cardiac	Open heart and Bypass	Cefazolin 1 g. IV q. 8 h 1-2 days
Head and Neck	Major resection for oropharyngeal or laryngeal CA	Clindamycin 300 mgs. IV q 8 h and Gentamicin 1.7 mgs/kg q 8 h both for 24 hours
Gynecologic Vaginal Hysterectomy		Cefazolin 1 q 8 IV q 8 hrs for 24 hours
C-Section	Primary C-Section Premature rupture of membranes	Cefazolin 1 g. IV 8 h for 24 hours
Peripheral Vascular	Aortic resection Groin anastomotic site	Cefazolin 1 g IV q 8 h for 24 hours
Orthopedic Total Joint replacement		Cefazolin 1 g. IV q 8 h for 24 hours
Hip Fracture with nail or plate		Cefazolin 1 g IV q 8 h for 24 hours
Abdominal Gastroduodenal	Bleeding ulcer obstruction Gastric ulcer or Cancer	Cefazolin 1 g IV q 8 h for 24 hours
Biliary Tract	Over 70 years old Obstruction Previous biliary surgery Emergency surgery Jaundice or Fever Acute cholecystitis Bile gram stain positive	Cefazolin 1 g IV q 8 h (Cefoxitin or penicillin G and gentamicin are alternatives)
Appendectomy	Perforation Gangrene	Clindamycin 300 mgs IV q 6-8 h for 2-7 d Gentamicin 1.7 mgs/kg IV q 8 h for 2-7 d (Dosage depends on renal function)
Colorectal	Emergency Surgery	Clindamycin 300 mgs IV q 6-8 h for 24 hours Gentamicin 1.7 mgm/kg IV q 8 h for 24 hours
	Elective	Erythromycin base Neomycin 1 g po (See Text)

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CME QUESTIONS

1. The development of operative site infections is related to:

A. Size of bacterial inoculum

B. Pathogenicity of infecting organisms

C. Host resistance

D. Presence of tissue fluids

E. All of the above

2. In clean surgery antibiotic prophylaxis is not necessary unless which of the following is (are) present?

A. Extensive tissue dissection

B. Implantation of prosthesis

C. Impaired blood supply

D. Immune compromised host

E. All of the above

3. In addition to dosage and route of administration, which of the following is important in selecting an appropriate antibiotic for surgical prophylaxis?

A. Protein binding of antibiotics

B. The presence of a prosthesis

C. Nutritional state of the patient

D. Particular patterns of antibiotic resistance

E. All of the above

4. Parenteral administration of antibiotics is preferred for all of the following surgical procedures *except?*

A. Appendectomy with perforation

B. Gastric ulcer with obstruction

C. Hemicolectomy for carcinoma

D. C-section with premature rupture of membranes

E. All of the above *require* parenteral antibiotic prophylaxis.

5. Antibiotic prophylaxis is recommended in Biliary tract surgery when which of the following is (are) present?

A. Over 70 years of age

B. Presence of jaundice and fever

C. Positive bile gram stain

D. Acute cholecystitis

E. All of the above

6. The bacterial organisms most likely to be involved in postoperative cardiac surgery infections are?

A. Staphylococci

B. Bacteroides species

C. H. influenzae

D. Pseudomonas

7. In most cases the administration of prophylactic antibiotics should not exceed?

A. 24 hours following surgery

B. 48 hours following surgery

C. 72 hours following surgery

D. None of the above

8. For more extensive head and neck surgery, the preferred antibiotic for prophylaxis is?

A. Penicillin

B. Cefazolin

C. Clindamycin

D. Erythromycin

E. Gentamicin

9. The most effective method for preventing surgical infections is which of the following?

A. Appropriately used prophylactic antibiotics

B. Good surgical technique and antisepsis

C. Extensive pre-operative evaluation

D. Intensive care following surgery

E. None of the above

10. Anaerobic organisms are important in the pathogenesis of surgical infection in all of the following surgical sites *except?*

A. Head and neck surgery

B. Biliary tract surgery

C. Gynecologic surgery

D. Gastrointestinal surgery

E. Orthopedic surgery

Question Key

One hour of Category 1 credit may be obtained by completing and returning the question key. An individual analysis of responses will be returned without charge.

A 50-minute videotape discussion of "Prophylactic Antibiotics in Major Surgery" may be purchased for $75 from the Office of Continuing Medical Education, WVU Medical Center, Morgantown, West Virginia 26506. Arrangements can be made for telephone discussion following the videotape presentation to groups. Visits to the local community or hospital by WVU medical staff in relation to this topic may be arranged.

The telephone number for the Office of Continuing Medical Education is (304) 293-3937.

Return to:

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Office of Continuing Medical Education
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Morgantown, WV 26506

Circle the correct response.

Question	1	2	3	4	5	6	7	8	9	10
	A	A	A	A	A	A	A	A	A	A
	B	B	B	B	B	B	B	B	B	B
	C	C	C	C	C	C	C	C	C	C
	D	D	D	D	D	D	D	D	D	D
	E	E	E	E	E			E	E	E

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Following Use Of The Mountaineer's Gun

Traumatic Tattoos Treated By Salabrasion

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A case of a traumatic tattoo secondary to gunpowder burns is presented, and the treatment with salabrasion is discussed.

Most traumatic tattoos occur secondary to highway accidents and gunpowder burns. The following case illustrates the importance of using appropriate safety precautions when using theatrical guns.

M. B., a 24-year-old white male student at West Virginia University, served as the Mountaineer mascot. He was seen on October 21, 1984, in the University Health Service complaining of right neck pain and debris embedded in the skin over his right neck. These injuries occurred after discharging a gun several times during the WVU-Penn State football game the previous day. The gun used was a 45-caliber muzzle-loaded Kentucky Long Rifle that he carried as part of his mascot duties. He used 450 grains of 2FF Red Diamond gun powder to discharge the gun several times at a distance approximately two feet from his right face and neck.

The lesions (Figure 1) consisted of multiple pieces of black debris of various sizes embedded in his skin and first-degree burns about his neck, face and external ear. Consequently, the patient was treated with local one-per cent Xylocaine anesthesia and the larger debris particles were removed with local curretage. After Demerol 50 mg IM, many smaller particles of gunpowder were removed with salabrasion. A 4x4 piece of sterile gauze, soaked in saline solution and then dipped into table salt (sodium chloride), was used to abrade lightly the affected area. Afterwards, a sterile dressing was applied. The patient was followed for signs of infection and satisfactory healing. No further therapy was necessary. The patient was satisfied with the cosmetic result (Figure 2).

Discussion

In this case, it was determined that an excessive amount of gunpowder had been used (three times the recommended amount) in order to create a louder sound that could be heard above the crowd noise at a football game. The gun was inspected and not found to be defective but sparks and gunpowder had been escaping because of the large amount of gunpowder used. When the proper amount of powder was used, the problem was solved.

Immediate therapy of gunpowder burns is necessary if permanent tattoos are to be avoided. Salabrasion is a technique of dermabrasion that was used as early as 543 A.D. by the Greek physician Aetius.[1] The procedure, as described in the case report, is rather simple. Different levels of pain relief are required for different patients. Also, a 10-day course of a broad-spectrum antibiotic therapy may be indicated in some patients. Cases of bacterial cellulitis resulting in hypertrophic scarring have been reported.[1] The salabrasion of accidental tattoos should be done within 24-48 hours of the injury, although it can be attempted up to five days after the injury.[2] The abrasion process should continue until the skin becomes "blood red" and resembles good granulation tissue.[1]

The mechanism of action of salabrasion is debatable. Most investigators believe that the superficial dermabrasion creates an inflammatory response that stimulates removal of the tattoo pigment.[3,4] This hypothesis holds that the inflammatory response promotes the "biologic removal" of the pigment through the lymphatics and sloughing of superficial macrophages.

Conclusion

Accidents associated with the use of theatrical guns can produce disfiguring injuries. This case illustrates the importance of safety precautions with these guns. The patient presented received traumatic tattoos secondary

Figure 1.

Figure 2.

to the use of excessive amounts of gunpowder. These were safely and effectively treated with salabrasion.

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Giant-Cell Arteritis: Diagnosis, Therapy And Implications For The Primary Care Doctor

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Giant-cell arteritis (GCA) is a potentially serious geriatric problem that is becoming more common as the population ages. These patients will confront the primary care physician in increasing numbers. Four cases of GCA are outlined and discussed. Emphasis is placed on the different ways GCA can present and the necessity for making a speedy diagnosis.

Introduction

Giant-cell arteritis (GCA) has been recognized as a serious geriatric disease of unknown etiology and has attracted great interest and concern in recent years. In 1890, Hutchinson[1] reported an elderly man who could not wear his hat because of inflamed and tender temporal arteries. Temporal arteritis was initially described by Horton in 1932.[2] In the literature this condition has been referred to as giant-cell arteritis, Horton's syndrome, cranial arteritis, temporal arteritis, and granulomatous arteritis. The disease is not confined to the temporal artery but may involve medium or larger arteries anywhere in the body.[3] It usually involves the root of the aorta and its branches in a patchy distribution, affecting one segment of artery, skipping the next. It may represent auto immune vasculitis of the eldery and may be clinically silent as witnessed by the finding of positive temporal artery biopsies in random autopsy cases.[4] Some evidence for both humoral and cellular immunity to elastic tissue of the artery has been presented.[5-7]

In this paper, we present four patients who have GCA. Each is unique in presentation and response to therapy. What is common, however, is the need for prompt diagnosis and therapy.

Case One

A 73-year-old white female presented with a three-month history of vague arm, shoulder and hip aches. Two months prior to admission, she developed headache and pain over both temporal regions. Occasionally when chewing food, she would have bilateral jaw pain. She denied fever, visual complaints, joint swelling, morning stiffness or gelling phenomena. Physical examination revealed tenderness of both temporal arteries. Pulses over the vessels were diminished. Cardiopulmonary, abdominal, neurological, and musculoskeletal examinations were unremarkable except for tenderness over the shoulder and hip musculature.

Laboratory studies were remarkable for a Westergren erythrocyte sedimentation rate (ESR) of 98 mm, hematocrit (Hct) of 34, hemoglobin (Hgb) of 11.4 and normal or negative SMA-18, white blood cell (WBC) count, rheumatoid factor, thyroid function studies and muscle enzymes. A biopsy of the right temporal artery (Figure 1) showed the presence of a chronic inflammatory cell infiltrate and several multinucleated giant cells in the adventitia and inner third of the media of the vessel. The intima was normal.

She was placed on 60 mg. of oral prednisone daily and, after two days, all of her symptoms disappeared. A repeat ESR one month later was 18 mm, and the prednisone was tapered slowly over the next 18 months, using the ESR as a barometer of the activity of the giant-cell arteritis. No steroid side effects were noted.

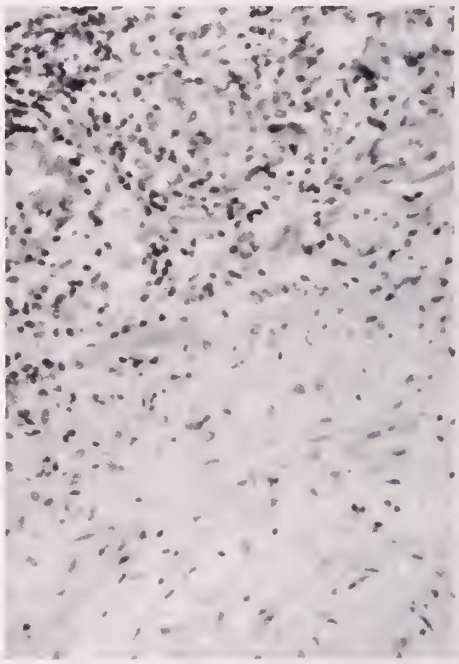

Figure 1. Case 1. Low-power (100x) photomicrograph showing a chronic inflammatory cell infiltrate with giant cells near the adventitia and outer third of the media.

Comment:

This patient represents a typical case of giant-cell arteritis with polymyalgia rheumatica (PMR). Frequently these two entities coexist. This patient responded to the prednisone with no adverse effects. Because of her sex and age, in an effort to inhibit the development of steroid-induced osteoporosis, she was placed on calcium and vitamin D supplementation.

Case Two

A 73-year-old female presented with a two-month history of fevers to 102°F and diffuse head pains and headaches. Shoulders and thigh pain developed one month prior to her evaluation. One week prior to her admission she ex-

perienced daily episodes of amaurosis fugax of the right eye. She denied soft tissue swelling of any joint, morning stiffness, and gelling phenomena. Physical examination revealed a pleasant, oriented, elderly white female. Tmax on day of admission was 101°F. HEENT examination was remarkable for tenderness over the temporal and zygomatic regions bilaterally. No swollen, bulging or red temporal arteries were noted. Early cataracts were noted on ophthalmoscopic examination but no retinal abnormalities were found. Cardiopulmonary, abdominal, neurological and skin examinations were remarkable. Musculoskeletal examination revealed some tenderness on palpation of the shoulder and hip girdle musculature but no synovitis, nodules or myofascial trigger/tender points were noted. Laboratory work revealed Westergren ESR of 110 mm, Hct 32, Hgb 10.4 with normal indices. Remainder of CBC, SMA-18, serology, muscle enzymes, blood cultures, serum and urine immunoelectrophoresis were negative or normal.

Because of this patient's visual symptoms, she was placed on 60 mg. prednisone daily, and a right superficial temporal artery biopsy was performed two days later. The biopsy revealed a marked chronic inflammatory cell infiltration with the presence of a few giant cells located as a band near the adventitia and outer third of the media. The intima was normal. This histological picture resembles that seen in Case One.

She tolerated 60 mg. of prednisone daily very well. She was kept on this dose for another two weeks. However, she had several episodes of amaurosis fugax during that period, although these episodes were not as frequent or severe as they had been prior to the initiation of steroid therapy. A repeat ESR performed after these two weeks was 52 mm. Because of persistent symptoms and an ESR that was still elevated, her prednisone dose was increased to 80 mg. per day. On that dose, she ceased to have visual problems, muscular aches, and headache. After two weeks of this dose, her ESR had fallen to 12 mm. Her prednisone was tapered slowly. Calcium and vitamin D were also prescribed.

Comment:

This patient had classic giant-cell arteritis with polymyalgia rheumatica. Her vision was in jeopardy, so she was given prednisone before the biopsy was taken. The patient's arteritis also caused fever which disappeared with initiation of steroid therapy. Giant-cell arteritis is known to cause fever and must be considered in an elderly patient who has a fever of undetermined origin (FUO).[8] Although this patient was treated with 60 mg. of prednisone initially, her visual symptoms did not completely disappear, so an increase in her steroid dose was mandated.

Case Three

An 82-year-old white female presented with a one-month history of swollen, tender blood vessels on both sides of her head, intermittent headache but no fever, recent visual symptoms, musculoskeletal discomfort or facial pain. Her past medical history was remarkable for the abrupt onset of blindness in the left eye several weeks after apparently successful cataract surgery approximately one year prior to admission.

On physical examination, she was afebrile and in no distress. She had no visual perception in the left eye but ophthalmoscopic examination revealed no abnormality with the anterior portion of the eye except for a well-healed iridectomy. Both temporal arteries were tender and slightly warmer than surrounding skin areas. She had been placed on 60 mg. of prednisone four days earlier by her referring doctor. Her temporal swelling and tenderness had diminished dramatically since she started the medication. The remainder of the physical examination was unremarkable. Laboratory tests revealed a Westergren ESR of 87, Hct 34, Hgb 12. Remainder of her tests were normal.

A left temporal artery biopsy was performed three days after admission (seven days after the start of oral prednisone). It revealed the presence of giant cells and an inflammatory cell infiltration similar to that seen in the first two patients (Figure 2) despite one week of prednisone therapy.

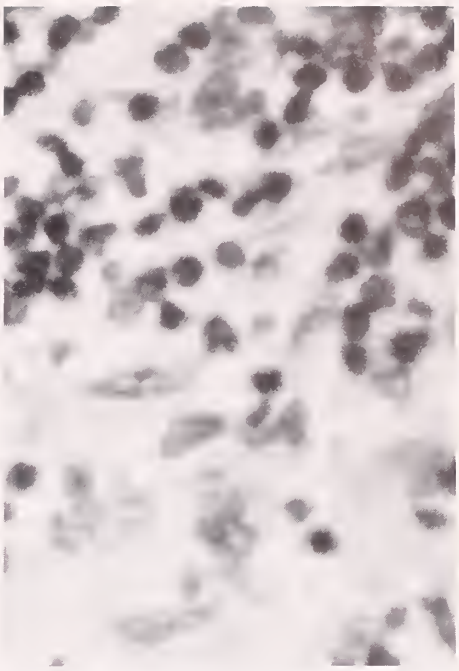

Figure 2. Case 3. High-power (400x) view of left temporal artery specimen. Note the presence of giant cells despite one week of prednisone therapy.

She continued on 60 mg. of prednisone for three more days but stated that she felt "funny" and "not normal." Fearing steroid psychosis, we decreased the prednisone dose to 50 mg. and then to 40 mg. over the next week. She ceased having these complaints and a repeat ESR performed after one week of 40 mg. prednisone daily was 18 mm.

Comment:

This patient also had biopsy-proven giant-cell arteritis and responded to oral prednisone although the dose had to be diminished due to side effects. What is interesting to note is that the vision in her left eye may not have been lost because of unsuccessful surgery for her cataract but rather may have been due to occlusion of the left posterior ciliar artery as a consequence of unrecognized giant-cell arteritis. In elderly patients, abrupt loss of vision or diminution in visual acuity for no obvious reason should prompt the patient's physician to consider occult giant-cell arteritis and, at the very least, question the patient very closely regarding the conditions surrounding the visual symptoms and obtain an ESR.

If elevated, a temporal artery biopsy is indicated. Even before the biopsy

can be obtained, the patient should be started on high-dose prednisone to prevent potential disastrous consequences. Even after one week of high-dose prednisone, giant cells were demonstrable in the biopsy specimen. This is in agreement with data found in the literature.

Case Four

A 70-year-old white female had a two-month history of back pain. She was referred because of an elevated ESR. She had no history of weight loss, fever, confusion, visual symptoms, masticatory claudication, headache, bitemporal tenderness/pain, or shoulder and hip girdle discomfort. A work-up revealed no evidence of infection or tumor (especially multiple myeloma). The back pain was due to two spontaneous compression fractures (T12 and L1). Treated with analgesia and physical therepy, she improved. No etiology of the elevated ESR was found. Two months later she began to develop confusion and photophobia. She was admitted and a temporal artery biopsy was performed. It was normal. Her ESR was 108 mmg, Hct 32, Hgb 11. Clinically, she appeared to have a form of arteritis of her intracranial vessels. She was started on 60 mg. of prednisone. Three days later, she was significantly improved. Her sensorium cleared and photophobia disappeared. One month later her ESR reverted to normal and the prednisone was tapered. She was placed on oral calcium and vitamin D.

It is an actuarial certainty that our elderly population will increase, as will the maladies attendant to them.

Comment:

Several problems occurred in the management of this patient. Her biopsy was negative. The decision to start prednisone was made purely on clinical grounds. The literature suggests that a small but significant percentage of giant-cell arteritis presents with a negative temporal artery biopsy.[9] Because she had already sustained compression fractures probably on the basis of postmenopausal osteoporsis, the decision to use prednisone, an agent that enhances pre-existing osteoporosis, was not an easy one to make. However, her confusion and visual symptoms dictated that action be taken and prednisone was started. Fortunately, she responded nicely: her sensorium cleared, and eyesight was preserved.

Dementia and confusion have been described as presenting manifestations of giant-cell arteritis.[10]

Discussion

It is an actuarial certainty that our elderly population will increase, as will the maladies attendant to them. It is necessary to be aware of such entities as giant-cell arteritis and to recognize the importance of early diagnosis and prompt treatment. Blindness is a dreaded complication, and preventative treatment should be initiated before the temporal artery biopsy if the patient's vision is in jeopardy.

One must realize that giant-cell arteritis is a systemic disease[11] and that a wide variety of complications can ensue including neurological,[12] circulatory and cardiac.[13]

Etiology and Incidence

GCA is a disease of unknown etiology and appears to be more common among people of Scandinavian descent and less common in blacks, [14,15] although cases in blacks have been reported.[16,17] It is rarely found in patients under 50 years of age. The peak age incidence is around the seventieth year. Women are affected twice as often as men. Polymyalgia is a feature in 50 per cent of patients. In an epidemiologic study in Minnesota a prevalence of GCA of 133 per 100,000 population, 50 years of age and older, was found.[18]

Pathology

GCA is a systemic vascular disease originating from the tunica media. The histopathologic findings are inflammation and necrosis of the media, fragmentation of the internal elastic membrane, thickening of the intima, and eventual obliteration of the lumen of the vessel.

The inflammatory cells such as lymphocytes, plasma cells, histiocytes, epithelioid cells and giant cells are located on either side of the fragmented and distorted internal elastic lamina. GCA presents a histophathologic picture of a granulomatous process. Electron microscopic examination has revealed that giant cells lie in close proximity to the fragments of the disrupted internal elastic lamina. The apperance is consistent with that of a cell-mediated immune response possibly provoked by altered elastic tissue. The aorta is frequently involved with resultant aneurysms. The external and internal carotid arteries and the vertebral artery may be involved. Occlusion of the ophthalmic or central retinal artery leads to blindness. Involvement of iliac, femoral, mesenteric and coronary arteries may cause ischemia and infarction.

Symptomatology/Physical Findings

The symptoms often may be nonspecific at the onset and may be limited for weeks or months to systemic symptoms including fever, chills, sweats, malaise, fatigue, weakness, anorexia and weight loss.

Headache is probably the most common complaint in temporal arteritis, and is present in two thirds of patients.

A fever of unknown origin in an elderly patient, accompanied by a very high erythrocyte sedimentation rate, should raise the strong possibility of temporal arteritis. Headache is probably the most common complaint in temporal arteritis, and is present in two thirds of patient. Swollen, tender temporal or cranial or cervical arteries may be present. The headache is usually a severe, boring type in the temporal area, unilateral or bilateral. It may migrate from the temporal area to the neck and is aggravated by straining, sneezing, coughing and chewing. Pressure on the vessels will usually make the headache more severe. Loss of vision is the most serious complication and may be caused by occlusion of the central retinal artery or of the short posterior ciliary arteries that supply the optic nerve. Visual

loss develops in about 20 per cent of cases. Blindness usually develops suddenly without warning but mild visual disturbances may herald total vision loss.

Loss of vision is the most serious complication and may be caused by occlusion of the central retinal artery or of the short posterior ciliary arteries that supply the optic nerve.

Intermittent claudication of the jaws and tongue upon mastication or talking may occur. Also, upper or lower extremity claudication may develop. Careful palpation of the temporal and occipital arteries is essential. When the involved vessel is compressed against the underlying cranium, the vessel cannot be flattened to the point of disappearance in many cases.

Laboratory Findings

The hallmark of GCA is a very high erythrocyte sedimentation rate (ESR) which frequently is above 100 mm by Westergren's method. Hypo-proliferative anemia, decreased albumin, increased alpha-2 globulins, fibrinogen, platelet counts and alkaline phosphatase may also be found. GCA in patients with normal ESRs have been described[19] but this is the exception rather than the rule.

Diagnosis

The diagnosis of GCA should be considered in any patient over the age of 50 who has an unexplained, prolonged fever, anemia, weakness, malaise, anorexia, headache, transient or sudden loss of vision, polymyalgia rheumatica and high erythrocyte sedimentation rate.

Diagnostic temporal artery biopsy is recommended in all patients suspected of having temporal arteritis. An adequate sample (up to 6 cm) should be obtained, and many sections should be studied carefully. The inflammation commonly is scattered randomly in "skip lesions."[20] Negative biopsy findings cannot exclude the diagnosis of GCA.

Treatment

As soon as the diagnosis is established, the patient should be given corticosteroid treatment. The starting dose is 45 to 60 mgm of prepnisone daily.

After clinical and laboratory findings have become normal, the dose can be gradually reduced. The maintenance dose is usually 10 mgm prednisone daily but many patients can stop taking steroids after one to two years.

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President's Page

Our Public Image

There is a growing and healthy concern in the profession for the way physicians are perceived by the people they serve.

The clues are everywhere. The Medical Association in a neighboring state has embarked on an elaborate campaign which has as one of its objectives improving behavioral approaches of physicians towards patients. The Association of American Medical Colleges recently published its report on the General Professional Education of the Physician (GPEP Report) in which it repeatedly emphasized the need for the physician "to develop the values and attitudes in-training essential for members of a caring profession, and to contribute to the society of which they are a part."

The AMA recently conducted an in-depth survey of 400 randomly selected West Virginians. Physicians are given good marks for ethical standards, medical knowledge, and accessibility. We are rated low in having too much concern for the economics of our practice and too little concern for the patient's time in the waiting room. We are given poor marks for not spending enough time communicating with patients about their problems or our fees.

Unfortunately, public relations groups and surveys can't be counted on to change anything. And, as a medical educator, I know how difficult it is for institutions to be certain they are selecting caring and concerned medical students. It may be possible for medical faculties to work harder at instilling these attitudes in their trainees.

Most of our acts of dedication and commitment to our patients are hidden from public view. This is as it should be.

But our image might be dramatically improved if each of us attempted to answer the question. "What can I do this coming year that would benefit my community?"

We could take a few lessons from our spouses. In many of the societies I have visited, the Auxiliary has been significantly involved in assisting with important community concerns.

Physicians often avoid such a public role, preferring to maintain a low profile. There is no better time than now to change.

David Z. Morgan, M. D., *President*
West Virginia State
Medical Association

Editorials

Message Is Clear: Support WESPAC

As physicians continue their struggle to find legislative relief for the current professional liability insurance crisis on behalf of their patients and themselves, the importance of political action continues to manifest itself.

In a democratic society, elected representatives are called upon to make legislative decisions which impact upon all our lives. Many times these elected officials from all walks of life are expected to make decisions on issues about which they really know very little. It is the role of those who have appropriate information about the issue to share that information with those who have to vote.

Obviously, any issue has two or more sides. Each person or group with a view on the issue has the task of presenting properly persuasive arguments for adopting his view on the issue. The elected have to decide how much of what they're told is fact or fiction, self-serving or in the true public interest, and then they must decide how to vote.

Beyond this direct legislative educational effort undertaken by persons commonly called "lobbyists," our democratic system, in addition to giving each citizen a vote, offers financial incentives to help support our candidates of choice.

Political contributions offer the contributor an opportunity to gain tax credits when filing the federal income tax return. The law currently permits an individual to enter one half of his contribution up to $50 ($100 on joint return) as a credit on line 44 (1984 tax form). While the law permits only a 50-per cent credit, the effect for the tax payer in the 50-per cent tax bracket is doubled. Thus a $100 political contribution really costs the 50-per cent taxpayer nothing, and even a 25-per cent bracket payer would, in effect, actually spend only $25 net to make a $100 contribution.

An excellent way to make your political contribution is by writing your personal check to WESPAC, the political action arm of West Virginia's physicians. A $100 contribution makes you a sustaining member of WESPAC-AMPAC (the AMA's political action arm) and entitles you to wear the "99+" pin. A $50 annual contribution makes you a regular member of WESPAC-AMPAC. Larger amounts can be contributed.

Remember, checks must be on your personal account and not from a corporate account if the money is to have impact in terms of being contributed directly to a candidate for political office. Federal election laws forbid corporate contributions to political candidates. Any money coming in on corporate checks can be used only as "soft" money, i.e., for educational purposes, etc. Obviously, an individual cannot claim a personal tax credit for a contribution he or she did not make, and a corporation, professional or otherwise, is not the same as a person.

The WESPAC Board meets periodically to consider candidate support and determines how much money will be given to which political candidates. WESPAC is bipartisan and supports candidates from both political parties for House and Senate races on the state level only. National-level Congressional and Senate races are supported by AMPAC with monies collected in West Virginia going to support selected candidates from the state.

Approximately 15 per cent of the WVSMA members have made a WESPAC contribution in 1985. Both WVSMA leaders and WESPAC board members would like to see that percentage grow considerably in the coming months as we move into the primary and general elections this year. "While a political contribution does not, cannot and should not 'buy' a candidate for office, it does indicate support for that candidate or officeholder and improves relationships and access to that individual," notes David Z. Morgan, M.D., WVSMA President.

"Since so much of what happens in medicine is controlled externally by the decision made in legislative bodies, it is imperative that physicians take a strong interest in the political process," Doctor Morgan continues. "This means not only financially supporting candidates who are philosophically thinking along similar lines, but actively involving ourselves in their campaigns through distributing literature, working in precincts, licking stamps, answering phones, knocking on doors or whatever else it takes."

Doctor Morgan shares a view which is slowly gaining currency in medical circles that, ultimately, the only way to truly influence governmental policies is to seek out, support and elect candidates who are committed to the same philosophical and social views of those doing the electing.

Physicians have been by tradition virtually apolitical or non-political for the most part, but are beginning to realize that such non-involvement is costly. "Sure, the physician's ox is

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being gored by the cost of professional liability insurance," says Doctor Morgan, "but to say that physicians are asking for special treatment under the law is simply not true. What we are seeking is relief for our patients who ultimately pay the price not only for expensive insurance and the court system which resolves disputes, but pays in loss of health care availability when physicians are forced to no longer offer high-risk services."

Looking beyond the immediate issues, physicians must continue to be involved in society's issues and be prepared to work with legislators on a broad range of matters of public interest. "We can't be here today and gone tomorrow," says Doctor Morgan. "We must be, for the long term, ready to offer our expertise and best opinions for the good of the patients and public we serve year after year.

"We can and will do all the lobbying necessary to convince the government (state or federal) of the validity of our positions on various issues and I believe we will succeed, but the effort would be so much easier if we were talking to politicians whom we know personally and had helped elect in the first place," Doctor Morgan concludes.

The message is clear: send your WESPAC contribution today.

Medicare's Prospective Payment System

Editor's Note: Reprinted with permission by Bluefield Daily Telegraph (November 20, 1985, Dave Pedneau, columnist).

The scene: A hospital room.
The time: The near future.

(A physician, accompanied by a nurse carrying a chart, enters the room and greets the patient, an elderly lady.)

"How do we feel this morning?" the physician asks.

The patient manages a smile. "Pretty good. A little better than yesterday."

The doctor asks for and receives the patient's charts. He studies them. "Hmm. I was hoping for a little more progress in your case."

"Is there something wrong?" the woman asks.

"Well, not wrong, at least not medically, but you're just not making the improvement that the government expects."

The patient frowns. "The government?"

The doctor nods, still intently studying the thick packet of papers.

"I don't understand, doctor," says the patient. "What's the government have to do with it?"

The physician shakes his head and hands the charts back to the nurse. "The government says you should be well enough to leave by tomorrow."

"By tomorrow? I can't even walk yet."

"Well, that may be, but you know for your particular condition . . ."

The patient's agitation mounts. "But the government isn't my doctor. They haven't even been in to examine me."

The doctor nods. "I understand, but they base their standards on predetermined data. For your condition, they say a stay of 10 days should be sufficient."

"So what if I'm not well enough in ten days?"

"Then we would of course advise you to stay." the doctor says.

"Well, you had me worried for a minute."

"Can you afford it?" asks the doctor.

The patient's eyes widen. "Afford it? I have Medicare."

The doctor shakes his head. "Not after ten days you don't. Now we don't want to place you under any stress, so try not to concern yourself, at least not right now."

If the above scene sounds outrageous, it should, but that doesn't make it any less of a possibility. In fact, in perhaps less dramatic ways, the scene is happening right now.

In an effort to reduce costs, the Medicare system has adopted a program called the "prospective payment system," or PPS to the bureaucrats. It's based on a concept called "diagnostic related groups" or DRG's.

What do all these initials mean? To be blunt, they mean a lot of misery and worry for the nation's senior citizens. The Medicare system has decided that patients with certain conditions should be well enough to leave hospitals within pre-established time frames. If, according to government standards, a condition doesn't warrant hospitalization, then Medicare will refuse to pay for any hospitalization.

Now this doesn't mean that a government doctor is going to come look at a particular patient. At the initial determination, the decision is based on general assumptions about general conditions, not on the facts of a particular case. If hospitals or doctors or patients feel abused by the system, there does appear to be a series of appeals available, assuming the patient manages to live that long without the proper medical treatment.

The U.S. Congress adopted the plan to reduce Medicare costs. One assumes that the plan was adopted because of a belief that physicians and hospitals were padding hospital stays and admitting patients to hospitals when such admissions were not indicated.

That may or may not be the case, but the method developed to combat that assumption causes the senior citizens a lot more problems than it causes the medical community. Imagine the dilemma of an elderly patient who is told by a doctor that he or she needs to be hospitalized but is also told at the same time that Medicare may disagree and not pay for that hospital stay.

WV Malpractice Claims/Suit Experience Revealed By WVSMA Member Survey

(Pull out this insert for convenient reference)

Purpose

The purpose of this survey was to gather data concerning professional liability insurance problems facing physicians in West Virginia. This survey attempted to identify the type, and number, of suits filed in West Virginia as well as particular trends or patterns by certain variables such as specialty or geographic region.

The survey also attempted to ascertain the impact the professional liability problem has had on the actual practice of West Virginia physicians and the type and quality of health care they provide.

Methodology

The survey was conducted by written questionnaire. The questionnaire was mailed to each active, full dues-paying member of the West Virginia State Medical Association. Approximately two weeks were allowed for the return of the completed questionnaire.

Percentages in this report have been rounded to the nearest per cent (in most instances); consequently, totals may not be exactly 100%.

Sample Characteristics

Questionnaires were mailed to 1,850 West Virginia doctors. Slightly more than 50% returned completed questionnaires. This high rate of return provides us with data that has a degree of accuracy of plus or minus 2.2% at the 95% confidence interval.

Of those returning questionnaires, less than 1% were 30 years old or under, 24% were between 31 and 40 years old, 35% were in the 41-50 category, nearly 22% fell between 51 and 60 years of age, and 18% were over 60 years old.

Men accounted for 87% of the returns, women 8%, and 5% did not respond to this question.

The state was divided into eight different regions to assist us in our analysis. The counties in each region may be found in Appendix A of this report. Approximately 30% of the respondents were in Region #1, 5% in Region #2, 5% in Region #3, 16% in Region #4, 15% in Region #5, 11% in Region #6, 7% in Region #7, 2% in Region #8, and 9% did not answer this question.

Respondents were asked to name the country of the medical school from which they graduated. The USA was named by 68% while 30% indicated a foreign country. Approximately 17% said they graduated in 1950 or before, nearly one-fourth said they graduated between 1951-60, 33% said they graduated from medical school between 1961-70, 18% between 1971-75, 7.5% between 1976-80, and less than 1% from 1981 to the present.

When asked to list their specialty, 16% named family or general practice, 18% internal medicine, 20% surgery, 6% pediatrics, 7% OB-GYN,

3% anesthesiologists, 13% radiology/pathology/psychiatry, and 17% some other specialty.

Of those responding, 71% said they were board certified, 21% were board eligible, and 8% were neither.

The respondents were nearly evenly divided between group (47%) and solo (50%) practice.

Findings

Some 45% of 1,033 physicians responding to a WVSMA poll sent to 1,850 active, dues-paying members indicated they have been sued one or more times in their practice career to date.

The numbers of suits is showing a steady increase as illustrated in the following table.

TABLE I

Suits Filed by Year

1975 or before	16%
1976-80	24%
1981-83	37%
1984-Sept. '85	24%

It is instructive to note that fully 61% of all suits reported by West Virginia physicians have been filed since 1981. Also noteworthy is the fact that the 21-month period from January, 1984, through September of 1985 generated as many suits as the entire five-year period, 1976-80. Clearly more patient-physician encounters are generating lawsuits today than ever before.

Reasons for bringing claims are spread among six categories plus the catch-all "other" as a seventh category. The most common reason for which the claim was brought was "bad result" (31%) which would tend to support the theory that many claims are based on a "maloccurrence" rather than true "malpractice," that is, the patient is simply unhappy with the result of the medical encounter rather than truly alleging that the doctor truly did something wrong, i.e., "malpracticed" in the situation.

TABLE II

Grounds on Which Suit was Based

Bad result	31%
Failure to diagnose	22%
Failure to follow standard of care	13%
Inappropriate Rx	8%
Failure to get informed consent	5%
Abandonment	2%
Other	19%

When the data was analyzed for numbers of suits, it became apparent that the vast majority of physicians reporting having been sued had had only one suit (264) while 15 reported having been sued 5 or more times.

TABLE III

Numbers of Suits Reported

Times Sued	*Number of Doctors*	*Total Suits*
1	264	264
2	108	216
3	50	150
4	24	96
5 or more	15	75
TOTAL	461	801

When the data is analyzed for suits by specialty, the following picture emerges (Table IV).

TABLE IV

Suits By Specialty

Specialty	*Sued*	*Never Sued*	*Total*	*% Sued*
Family Physicians	52	115	167	31%
Internal Medicine	54	122	176	31%
All Surgeons	131	62	193	68%
Pediatrics	22	44	66	33%
OB-Gyn	56	16	72	78%
Anesthesiology	11	16	27	40%
Radiology/pathology/ psychiatry	53	82	135	39%
All Others	79	97	176	44%

In relation to the above table, a further breakdown of the data indicates that physicians in the higher risk specialties are more apt to have multiple suits. Of interest as well is the number of cases where the doctor has been exonerated of malpractice by a finding of "not guilty." While it is difficult to draw any firm conclusions from such a finding, there is reason to think that many of the actions brought are perhaps without merit and are frivolous or nuisance in nature.

Among family physicians, for example, only eight report having been sued twice, and one had three suits. Thirteen (25%) of the total 52 family physicians reporting suits won "not guilty" verdicts.

Sixteen internists were sued twice, and one three times while the rest reported only one suit. Internists collectively were exonerated 12 times

with "not guilty" verdicts including two who each won two such verdicts.

Of the 22 pediatricians reporting suits, only four had been sued twice, and four cases resulted in acquittals.

Among surgeons of all types responding, 53 reported one suit, 38 had two suits, 19 had three suits, 12 had four suits and 9 had five suits. Collectively, 48 of these claims resulted in exoneration including one surgeon who won "not guilty" verdicts all five times he was sued.

A total of 72 obstetrician-gynecologists responded to the survey out of a total of 127 known members of the WV Chapter of the American College of Obstetricians/Gynecologists. Collectively, they accounted for 125 of the 801 suits reported in the survey. Nineteen of them have had only one suit; 15 have been sued twice; 14 have been sued three times; 6 of them have been sued four times and two have been sued five times each. Together, OB-GYNs have won 25 acquittals in the 125 suits in which they were named.

Only two anesthesiologists reported having two suits while one has had three suits. Three anesthesia cases have produced findings of "not guilty."

Among radiologists, pathologists and psychiatrists who were grouped together as being primarily class I insurance risks, there were 11 who had experienced two suits, five who have had three suits and three who have had four suits. Collectively, this group has been exonerated 24 times in 83 suits.

All other physicians responding together had only 14 who were sued twice, nine sued three times, three sued four times and four sued five times. Collectively, this group has been exonerated 29 times including one doctor who has won all four of his cases.

Based on the rounded figures and percentages obtained from the reported data, some 300 of the 800 cases reported are still pending in some stage of litigation.

Reported settlements number 288 while 178 cases went to a jury. Of the jury cases, 158 resulted in acquittals while 20 provided a jury award.

TABLE V

Suits by Disposition and Award

	Settlement (out of court)	*To Jury Award*	*To Jury Acquittal*
Percentage Disposed	62%	4%	34%
Range of Award:			
$ 0-$ 25,000	58%	40%	—
$ 25,001-$ 50,000	16%	15%	—
$ 50,001-$ 100,000	14%	10%	—
$100,001-$ 500,000	8%	15%	—
$500,001-$1,000,000	4%	5%	—
Over $1,000,000	1%	15%	—

To determine independent of insurance company data the probable payout made by insurers on behalf of West Virginia physicians, the above percentages are related to the previous table indicating numbers of suits and the mathematical calculations are presented herewith.

In studying these figures it should be noted that the low range amount would be skewed considerably by those jury awards and settlements made prior to 1980 when the majority of the cases tended to be concluded for amounts under $100,000.

The great concern remains the ever-increasing numbers of suits and claims and the dramatically increasing size of the awards. Recent reports in the literature from Jury Verdicts Research out of Solon, Ohio, indicate that, on average, one million-dollar jury award is being made per week in the U.S. Other figures indicate that the average court award is now at $950,000.

TABLE VI

Range of Payouts for Settlements and Jury Awards

%	No.			Payout would be between-
			Dollar Value of Settlements	
58%	(175)	between	$0-$25,000	$0 -$ 4,375,000
16%	(48)	"	$25,000-$50,000	$ 1,200,000-$ 2,400,000
14%	(42)	"	$50,001-$100,000	$ 2,100,000-$ 4,200,000
8%	(24)	"	$100,001-$500,000	$ 2,400,000-$12,000,000
4%	(12)	"	$50,001-$1,000,000	$ 6,000,000-$12,000,000
1%	(3)	over	$1,000,000	$ 3,000,000-$? ? ? ? ? ?
			TOTAL	$14,700,000-$37,975,000
			Average	$48,355 -$111,176
			Dollar Value of Jury Awards	
40%	(8)	between	$0-$25,000	$0 -$ 200,000
15%	(3)	"	$25,001-$50,000	$ 75,000-$ 150,000
10%	(2)	"	$50,001-$100,000	$ 100,000-$ 200,000
15%	(3)	"	$100,001-$500,000	$ 300,000-$ 1,500,000
5%	(1)	"	$500,001-$1,000,000	$ 500,000-$ 1,000,000
15%	(3)	over	$1,000,000	$ 3,000,000-$12,000,000*
			TOTAL	$ 3,975,000-$15,050,000
			Average	$198,750 -$752,500

*Includes known $10,000,000 jury award in Southern West Virginia

When added together, settlements and awards total an amount somewhere between $18,675,000 on the minimum side to perhaps as much as $52,000,000 on the maximum side. The actual payout is somewhere between the two extremes, with the best educated guess to be around the $30,000,000 mark.

It is important to note that the figures presented here do not include defense costs and are based on reported data from physicians and not from the insurance companies themselves. Conservatively estimating, defense costs could add an additional $8,000,000 to the payout picture if they follow the national average of 25 per cent. Defense costs are incurred, of course, on every case whether or not there is a jury award or settlement.

One must also note that the data here and the projected payouts are based only on the experience reported in the survey. Assuming that physicians not responding (whether WVSMA members or not) have a similar experience and claim ratio, it is possible to project perhaps again as much payout for the additional exposure represented. Or the converse; if the data reported here represented the sum total of all lawsuits ever filed against physicians in West Virginia, the picture is sufficiently adequate to illustrate that insurers in West Virginia have paid out sums in excess of the money available to pay claims from premium monies collected.

Effects of Liability Problem

An overwhelming majority of the responding doctors (70%) believed that the professional liability insurance crises has affected their practice in some way. The following table outlines by each category and by multiple actions taken or considered, the various ways these doctors have altered their practice in response to the liability crises.

TABLE VII
How Liability Problem Affected Practice

	Each Category	*Total Actions Taken or Considered*
Increased testing (defensive medicine)	56%	34%
Reduced risk exposure procedures	40%	24%
Considering leaving West Va.	23%	14%
Declining to provide Medicaid services	18%	11%
Reduced coverage to save premium dollars	14%	9%
Limiting new patient access	14%	8%

Age

The age distribution of the respondents appears to follow a fairly normal curve.

The only apparent difference in age by region is that Region #1 has fewer physicians over 60 years old than the average, and Region #6 has more than the average over 60 years old.

The only major difference in specialty and age group is that more (7%) 31 to 40-year-old doctors specialize in internal medicine that the average for all age groups, 6% fewer doctors specialize in family practice in the 41-50 age group, and 8% more doctors 60 and over are in family practice than the average for all age groups.

There appears to be a greater percentage of physicians graduated from US medical schools in the 31-40 and 60+ age groups, while a greater percentage of foreign-graduated doctors appears in the 41-50 age group than the average. Also, as the age of the physician gets younger, the per cent that are board certified gets greater. Of all age groups, the 41-50 age group has the highest number (57%) in group practice.

When asked if they had ever been sued, the 51-60 age group responded in the affirmative most often with 54%. The 31-40 age group had the fewest suits.

TABLE VIII
Physicians Sued by Age

	Sued	*Not Sued*
30 years old or under*	33%	67%
31-40 years old	28%	69%
41-50 years old	50%	49%
51-60 years old	54%	44%
Over 60 years old	45%	55%

*represents less than 1% of respondents (3 responses); thus, percentages for this age group are fairly meaningless.

There was no significant difference by age group and the number of times they were sued compared to the total survey average.

The 31-40 age group appeared to be less willing to agree to an out-of-court settlement (52% to the overall average of 62%) and consequently were acquitted 46% of the time compared to the total survey average of 34%. Additionally, only 2% of the suits in this age bracket received jury awards, compared to 4% of all suits disposed of in the total survey. Also, of all suits filed against physicians in this age group, 60% were still pending compared to 39% for the total survey.

The 51-60 age group agreed to out-of-court settlements more often with 70% compared to the survey average of 62%. 27% were acquitted compared to 34% for the survey average. This group also had only 29% of the total suits filed against them still pending compared to 39% for the overall survey.

The 60+ age group differed only slightly from the whole with 57% agreeing to out-of-court settlements and 7% of the suits disposed of involving jury awards, although this is not a significant difference. However, this age group only had 23% of their total suits still pending compared to 39% for the total survey.

Each age group paralleled fairly closely the average for the total survey in the number that believed the professional liability insurance crises has affected their practice. The older the physician the less he considered leaving West Virginia as an alternative; however, 7% more physicians in the 31-40 age group said they were considering leaving the state. This translates into a 30% greater possibility of a young doctor in his/her 30s leaving the State than for the average for all age groups.

Those in the 31-40 range were less inclined to reduce risk-exposure procedures, while those over 60 were more inclined.

Sex

Not surprisingly, the number of females responding to the survey increases as the age group gets younger. There are no significant differences by region, except there are slightly more females in Region #6 than the overall average.

There are significantly fewer women than the average for the specialties of internal medicine

(10% compared to 18% for all physicians) and surgery (10% to 19%). However, there were nearly twice as many women as a per cent in anesthesiology, and there were nearly three times as many women than the overall average in pediatrics (21% to 7%).

There was a lower percentage of women graduated from US medical schools (56%) than men (70%). More male physicians were board certified than female (72% to 61%) but more female physicians were board eligible than male (32% to 20%). Approximately 9% more women were in group practice than men (56% to 47%).

Male physicians were sued much more frequently (45%) than their female counterparts (28%). There were no major differences in the grounds on which the suits were filed by sex. Men considered the professional liability insurance crises as having affected their practice more often (72%) than women (59%).

Region

There was no significant difference in the regions until it came to the per cent graduated from US or foreign medical schools.

TABLE IX

Country of Medical School by Region

	U.S.	*Foreign*
Region #1	73%	25%
Region #2	76%	22%
Region #3	69%	30%
Region #4	51%	47%
Region #5	74%	23%
Region #6	80%	19%
Region #7	68%	31%
Region #8	62%	38%

Table X shows the regional breakdown of percentage of physicians who have been sued.

TABLE X

Physicians Sued by Region

	Sued	*Not Sued*
Region #1	38%	60%
Region #2	50%	45%
Region #3	33%	65%
Region #4	48%	51%
Region #5	51%	49%
Region #6	49%	49%
Region #7	50%	49%
Region #8	43%	57%

It's clear that the fewest number of suits were filed in Regions #1 and 3, followed closely by Region #8. The frequency of suits was spread fairly evenly over the other regions of the state.

The largest percentage of physicians who felt the professional liability insurance crises had affected their practice (81%) were in Region #4, and the lowest percentage (62%) was in Region #1.

Specialty

Women were found more often than the overall average in pediatrics and anesthesiology.

The following table shows the percentage of physicians graduated from US or foreign medical schools by specialty.

TABLE XI

Country of Medical School by Specialty

	U.S.	*Foreign*
Family practice or general practice	75%	24%
Internal medicine	75%	23%
Surgery	61%	36%
Pediatrics	55%	40%
OB-GYN	69%	27%
Anesthesiology	50%	50%
Radiology/Pathology/Psychiatry	68%	29%
Other	70%	28%

The specialty category labeled Radiology/Pathology/Psychiatry had the highest percentage of board-certified physicians at 85%, followed by OB-GYN (80%) and surgery (78%). The specialty category with the highest percentage board eligible was family practice with 15%. Family practice was also the specialty with the highest percentage (33%) neither board certified nor board eligible.

The following table shows the percentage of physicians sued by specialty.

TABLE XII

Physicians Sued by Specialty

	Sued	*Not Sued*
Family practice or general practice	31%	68%
Internal medicine	30%	67%
Surgery	67%	32%
Pediatrics	33%	66%
OB-GYN	77%	22%
Anesthesiology	39%	57%
Radiology/Pathology/Psychiatry	39%	60%
Other	44%	55%

It is clear from the table above that the specialties of surgery and OB-GYN are the specialties being sued most often. And as one could anticipate, the doctors in these two specialties had the highest percentage that believed that the professional liability insurance problem had affected their practice with 82% of the surgeons and 89% of the OB-GYNs responding affirmatively. The radiology/pathology/psychiatry group and the anesthesiologists had the lowest percentage with 52% and 53%, respectively.

A whopping 58% of the OB-GYNs said they were considering leaving West Virginia, as were 32% of the surgeons.

TABLE XIII

How Liability Problem Affected Practice by Specialty

	Reduced Coverage	*Reduced Risk Exposure Procedures*	*Increased Testing*	*Considering Leaving West Virginia*	*Limit New Patients*	*Decline to Provide Medicaid Services*	*Has Affected Practice*
F/P or G/P	19%	57%	65%	17%	19%	17%	78%
Internal Medicine	7%	28%	54%	15%	12%	19%	65%
Surgery	18%	55%	67%	32%	20%	25%	82%
Pediatrics	13%	36%	57%	24%	12%	16%	64%
OB-GYN	34%	36%	78%	58%	19%	41%	89%
Anesthesiology	14%	18%	29%	18%	0%	0%	54%
Radiology/Pathology/Psychiatry	3%	22%	32%	13%	2%	2%	52%
Other	14%	44%	56%	24%	14%	17%	69%

Country of Medical School

There was no real difference between men and women and the country of their medical school. There was a significant difference in that of those graduated by a US medical school, 77% were board certified, 14% board eligible and 8% neither. Of those graduated by a foreign medical school, 57% were board certified, 34% board eligible and 7% neither.

There was no meaningful difference between the two categories in the percentage having been sued with 45% and 43% responding yes. Nor was there a difference in number of times sued.

Again, in suits actually disposed of, and suits still pending from all suits filed, there was no significant difference between the two groups.

TABLE XIV

Suits by Disposition by Country of Medical School

	U.S.	*Foreign*
Settlement	61%	64%
Jury award	4%	4%
Acquitted	35%	32%
Still pending	38%	40%

Approximately 70% of both groups also felt that the professional liability insurance crises had affected their practice.

Medical Certification

The following table shows the slight differences between those physicians sued and the type of medical certification they have.

TABLE XV

Physicians Sued by Medical Certification

	Sued	*Not Sued*
Board certified	48%	51%
Board eligible	39%	57%
Neither	31%	69%

There were no other significant differences according to medical certification.

Group or Solo Practice

There were very few meaningful differences between these two categories.

For those doctors in group practice, 76% were graduated from a US medical school, compared to 60% of those in a solo practice. Additionally, 84% of those in a group practice were board certified, 12% board eligible and 3% neither. This compared to 58% board certified, 29% board eligible and 13% neither for those having a solo practice.

There was no real difference in the percentage that had been sued in either category (47% to 43%).

Physicians Sued

The only noticeable variance with those physicians sued, and those not sued, was that 80% of the physicians who had been sued felt the professional liability insurance problem had affected their practice, compared to 62% of those physicians who had not been sued.

Also, those physicians who had been sued were considering leaving the state at twice the percentage of non-sued physicians (32% to 16%).

CONCLUSIONS:

Nearly two thousand questionnaires were mailed to members of the West Virginia State Medical Association and over 50% (1,033) completed and returned the questionnaires. This exceptionally high rate of return is a clear indication of how seriously the physicians in West Virginia view the problem of professional liability insurance and rising premiums.

One must be cautious in reviewing this data, however, as those who have been sued are probably more likely to complete and return this type of questionnaire.

There is a clear trend of an increasing number of suits being filed with each passing year, and with 45% of the responding physicians indicating they had been sued at least once, there is ample evidence of the size and seriousness of the problem and the escalating trend that is continuing.

It is vitally important that all parties interested in the professional liability problem for physicians note that only 4% of the suits that were actually disposed of involved a jury award, 62% were by out-of-court settlement, and slightly over one-third of these disposed of suits were acquitted.

This acquittal figure, if accurate, represents a tremendous amount of financial strain and emotional stress for naught. It should also be noted that over one-half the jury awards were for less than $50,000.00, as were nearly three-fourths of those cases settled out of court.

The grounds upon which a suit was most often filed was "bad result" followed by "failure to diagnose." OB-GYNs and surgeons were sued most often, while 70% of all physicians felt the professional liability insurance problem had affected their practice, with "increased testing (defensive medicine)" and "reduced risk exposure procedures" leading the list of affected areas of practice.

It is most telling that 70% of OB-GYNs, and 67% of surgeons, having been sued, that over one-half of all OB-GYNs and one-third of the surgeons are considering leaving the state.

There is also some evidence that for those physicians less willing to agree to an out-of-court settlement, their chances for acquittal increases, as with the 31-40 year old age group.

As a percentage, the number of female physicians increased as the age of the physician(s) decreased. Women accounted for nearly three times the average in the specialty of pediatrics and twice the average in anesthesiology. There were significantly fewer women in the specialties of internal medicine and surgery.

Male physicians were sued much more frequently than female, but there were no major differences between the two concerning the grounds upon which the suits were filed.

Region #4 had the highest percentage of foreign graduated doctors with 47%, followed by Region #8 with 38%. Regions #5, 7, 2, 6 and 4 had the highest percentage of physicians sued, with Regions #3 and 1 the lowest per cent.

It is apparent from Table XII that the professional liability insurance problem has affected to one degree or another nearly every area of a physician's practice. Defensive medicine, or increased testing, and reduced risk exposure procedures are the two most heavily affected areas.

It was also clear that there were no significant differences in per cent of physicians sued, or disposition of suits, between graduates of US or foreign medical schools.

There is no doubt that, according to the one thousand and thirty-three physicians responding to the survey, the professional liability insurance problem for physicians is a crisis and is growing more intense with each passing year. This is underscored by the fact that nearly one-fourth of all the physicians surveyed said they are considering leaving the State of West Virginia.

APPENDIX A

Region #1

Brooke
Hancock
Harrison
Marion
Marshall
Monongalia
Ohio
Preston
Wetzel

Region #2

Berkeley
Grant
Hampshire
Hardy
Jefferson
Mineral
Morgan
Pendleton

Region #3

Barbour
Greenbrier
Pocahontas
Randolph
Taylor
Tucker

Region #4

Boone
Fayette
Logan
McDowell
Mercer
Mingo
Monroe
Raleigh
Summers
Wyoming

Region #5

Kanawha

Region #6

Cabell
Clay
Lincoln
Mason
Putnam
Wayne

Region #7

Calhoun
Doddridge
Jackson
Pleasants
Ritchie
Roane
Tyler
Wirt
Wood

Region #8

Braxton
Gilmer
Lewis
Nicholas
Upshur
Webster

A great many people have worked faithfully for many years to have a little money with which they can enjoy their retirement. Congress comes along and with one thoughtless piece of legislation wipes out those hopes.

By some means this nation needs desperately to tackle rising medical costs. Perhaps the medical community is guilty of gouging Medicare. But to devise this type of nonsensical plan to address the problem borders on the criminal neglect of our senior citizens.

If most of us are lucky, we'll get to be senior citizens one day. Do we want to be faced with such cruel, bumbling bureaucratic schemes when we reach our "golden years"?

Physicians claim that the new Medicare program denies them the right and ability to exercise their medical judgments. Those who initated the plan will probably argue that the lack of good medical judgment prompted the new plan. That's a high-powered debate that deserves to be settled, but as we debate that issue we shouldn't be imposing the punishment for the suspected wrongs of the medical community on the people least responsible for it.

The medical community needs to take a hard look at itself. There are a great meany problems that it must address, but, for all of that, I'd rather depend on my doctor to prescribe my treatment than some invisible government bureaucrat.

I'm tempted to urge folks to write letters to their elected representatives. On the other hand, any Congress that could adopt such a cruel, misapplied program as PPS probably wouldn't even bother to read those letters. Anyone with any sense at all had to see what PPS would cause when they passed it the first time.

Our Readers Speak

Diagnosis Of JRA Questioned

The article entitled "Urticaria Associated With Juvenile Rheumatoid Arthritis" by Dr. [Jung W.] Park in the October, 1985, issue of *The Journal* was very interesting. Unfortunately, I don't believe that this patient had juvenile rheumatoid arthritis (JRA). A patient must have documented swelling of more than one joint for at least six weeks before a diagnosis can be made.[1] In addition, the rash described by Doctor Park is not typical of JRA for several reasons. First of all, the rash does not look like "a fresh bruise." In addition, the rash often tends to come and go with the patient's fever. It can often be reproduced by scratching the skin (the Koebner phenomenon).[2] Doctor Park's patient had swelling for only a few days and the rash described is not typical.

Urticarial rashes are not common in association with connective tissue diseases. However, the presence of a rash in association with arthritis should raise the question of systemic lupus erythematosus, vasculitis, hepatitis, and viral arthritis. I have seen several children such as described by Doctor Park who turned out to have viral arthritis.

It is most important to make a correct diagnosis of JRA since there are many other childhood arthritides that require other treatment.

Brian D. Houston, M.D.
Rheumatology
Bridgeport, WV 26330

1. JRA Criteria Subcommittee: criteria for classification of juvenile rheumatoid arthritis. Bull Rheum Dis 1973; 25:712-719.

2. Juvenile Rheumatoid Arthritis. In: Jacobs JC. Pediatric Rheumatol. New York: Springer-Verlag New York, Inc, 1982:191-192.

The worst tempered people I've ever met were people who knew they were wrong. . . . Wilson Mizner.

General News

Harry S. Weeks, Jr., M. D.

James C. Crews

PPOs, HMOs Physicians' Session Focus

COPD, Cardiac Rehab Papers Complete 'Mid-Winter' Program

Speakers for papers on "Chronic Obstructive Pulmonary Disease" and "Cardiac Rehabilitation" have been announced by the Program Committee for the 19th Mid-Winter Clinical Conference.

The former paper will be given by Sam T. Bebawy, M. D., Assistant Professor of Medicine, Marshall University, during the Saturday afternoon session on "Common Problems Encountered in Office Practice;" the latter paper, by Charleston cardiologist Harold Selinger, M. D., during the Sunday morning session, "Symposium on the Management of Acute Myocardial Infarction."

The CME event, again under the sponsorship of WVSMA and Marshall University and West Virginia University schools of medicine, will begin at 2 P. M. on Friday, January 24, and close at noon on Sunday, January 26.

In addition to the two sessions mentioned above, the opening Friday afternoon session will be on "Oncology," concurrent sessions for physicians and the public will be held Friday evening, and a session on "Problems in Our Aging Population" is scheduled Saturday morning.

The meeting site again will be the Charleston Marriott.

"We believe we have an excellent program planned," said Dr. William O. McMillan, Jr., of Charleston, Program Committee Chairman, "and we're hoping for the best attendance ever.

Exhibit Visitation Urged

"We would like to remind doctors that, for the first time ever, we are having a limited number of commercial exhibits along with the usual scientific exhibits. We'd like to urge everyone to visit all the exhibits and give them full support so that they will want to return next year."

"PPOs, HMOs: To Go or Not to Go" will be the discussion topic for the Friday evening Physicians' Session. Dr. Harry S. Weeks, Jr., of Wheeling, will preside and serve as one of the speakers, along with James C. Crews, President of Charleston Area Medical Center and Chairman of HealthNet, Charleston, and Kenneth L. Robinson, Jr., Vice President of Legal Affairs and Corporate Secretary, Blue Cross and Blue Shield of West Virginia, Inc., Charleston.

Medical Institute Director

Doctor Weeks, a former WVSMA President (1971-72), is Medical Director of the West Virginia Medical Institute, Inc., in Charleston, and has been a key force in the development of the Institute since its inception.

The Institute will provide the preadmission certification and utilization review programs for the statewide PPO being formed by the WVSMA.

Doctor Weeks, who also is a WVSMA Delegate to the AMA, has had experience with a PPO operating in the Wheeling area.

Robinson earned his B.A. degree in 1969 from Ohio Wesleyan University, and his J.D. degree in 1973 from the University of Michigan Law School. He has been admitted to practice in West Virginia and New Hampshire.

Hospital Affiliation Since 1969

Crews was Executive Vice President of CAMC in 1972-81, and Administrator of the former Charleston General and McMillan (Charleston) hospitals in 1969-72.

Among a number of professional and civic posts held by Crews are those as Adjunct Professor, WVU Department of Community Medicine, and as member: Advisory Council, West Virginia Health Care Cost Review Authority; Board of Advisors, American Health Capital, and Execu-

tive Board of Directors (also Treasurer), Voluntary Hospitals of America, Inc.

He was graduated from Wisconsin State University, and received an M. A. degree in 1964 in hospital administration from the University of Iowa.

The concurrent Friday evening public session will be entitled "Adolescent Sexuality." Speakers will be Frances L. Jackson, R. N., M. N., Director of the Department of Youth Health Services, Memorial General Hospital, Elkins, and Jack L. Smith, M. D., Associate Professor of Behavioral Medicine and Psychiatry, WVU Medical Center, Charleston Division.

Cancer Center Tour, WESPAC Dinner

The previously announced Friday afternoon cash bar has been cancelled and in its place will be, from 5:30 to 7:30, an informal open house with a tour of The Cancer Care Center of Southern West Virginia at the CAMC Memorial Division (see story accompanying this article).

On Saturday evening, there will be a reception at 6 o'clock courtesy of Chapman Printing Company, followed by a WESPAC dinner at 7 o'clock featuring a prominent speaker to be announced.

The dinner will be a ticketed function.

Kenneth L. Robinson, Jr.

Sam T. Bebawy, M. D.

Harold Selinger, M. D.

Doctor Bebawy is Acting Director of the Pulmonary Division at MU, and is staff physician and Attending Consultant in Critical Care and Pulmonary Diseases at the Veterans Administration Medical Center in Huntington.

He also is Medical Director, Intensive Care Unit, at the VA Medical Center, and is a member of the staff at St. Mary's Hospital and Cabell Huntington Hospital in Huntington.

Doctor Bebawy came to MU in 1984 from a teaching post at St. Louis University.

He received his M. D. degree in 1976 from Cairo (Egypt) University, took his internship and residency in internal medicine at Sinai Hospital of Baltimore, and completed a fellowship in pulmonary medicine at St. Louis University.

Started Catheterization Lab

Doctor Selinger is Clinical Professor of Medicine, WVU Charleston Division. He established the cardiac catheterization laboratory at Memorial Division, CAMC when he came to West Virginia in 1962, and has been its Director since that time.

He is Consultant in Cardiology, Division of Crippled Children, West Virginia Department of Health, and was a member of the CAMC Board of Trustees in 1972-77.

Born in New York City, Doctor Selinger was graduated from Brooklyn College, and received his M. D. degree in 1953 from Downstate Medical Center, New York State University.

He did his postgraduate work, including a fellowship in cardiology and cardiopulmonary laboratory and as a heart fellow at Jewish Hospital of Brooklyn.

Doctor Selinger currently is principal investigator in the research study, "Lopressor Intervention Trial — A Multicenter Study."

Speakers Announced Previously

Speakers and topics announced previously are:

Friday Afternoon (Oncology) — "Chemotherapy of Common Cancers," Peter C. Raich, M. D., Professor of Medicine and Chief, Section of Hematology/Oncology, WVU, Morgantown; "West Virginia Community Clinical Oncology Program (CCOP): An Update," Steven J. Jubelirer, M. D., Medical Director, CAMC's Cancer Center, and Clinical Associate Professor of Hematology/Oncology, WVU Charleston Division; "The Chronic Lymphoid Leukemias: Their Recognition and Management," Anthony J. Bowdler, M. D., MU Professor of Medicine; and "Screening for Cancer," David P. Winchester, M. D., Associate Professor of Clinical Surgery, Northwestern Medical School, Evanston, Illinois;

Saturday Morning (Problems in Our Aging Population) — "Osteo-

Other Meetings During Conference

The WVU Alumni Association will hold a luncheon meeting on Friday, January 24 at 11:30 A.M. at the Marriott. The luncheon will be a ticketed function (room to be assigned). For further details, contact Linda Nine, WVU School of Medicine, G104 Basic Science Building, Morgantown, WV 26506.

* * *

The Finance Committee of the West Virginia Chapter, American Academy of Family Physicians' Board will meet at 4:30 P.M. on Thursday, January 23, in Bill Ferrell's suite at the Marriott.

The Family Medicine Foundation of West Virginia Board will meet Friday, January 24, at 4:30 P.M. in Bill Ferrell's suite at the Marriott.

The Board of Directors, West Virginia Chapter, AAFP will hold a dinner meeting at 6:00 P.M. on Friday, January 24, at the Marriott (room to be assigned).

* * *

The WVSMA will sponsor an AMPAC Political Education Seminar on Saturday, January 25, from 8:00 A.M. until 5:00 P.M. The Seminar will be held in Conference Room 203, Charleston Civic Center (across the street from the Marriott). The Seminar is primarily being held for Auxilians; however, other interested persons may attend. Attendance limited to 50 registrants. For further information, contact Dee Crabtree, WVSMA.

* * *

The luncheon held during the AMPAC seminar will be open to 50 additional guests who would like to hear a West Virginia legislator's address on political involvement and enjoy a catered lunch. Cost of the luncheon alone is $10. Contact Dee Crabtree to register and/or determine if luncheon vacancies exist.

* * *

"Dutch Treat" Prayer Breakfast will be held Sunday, January 26, at 7:30 A.M. William Standish Reed, M. D., of Tampa, Florida, President of the Christian Medical Foundation International, will be the guest speaker. The breakfast will be held at the Marriott (room to be assigned).

* * *

The Executive Committee of the West Virginia District Branch, American Psychiatric Association has scheduled a luncheon meeting at noon (following the adjournment of the Conference); and a business meeting, with guest speaker, at 2 P.M. on Sunday, January 26, at the Marriott (room to be assigned). Kenneth M. Fink, M. D., of Huntington, President, presiding.

porosis," Patience H. White, M. D., Director, Division of Rheumatology, and Assistant Professor of Medicine and Child Health and Development, The George Washington University Medical Center, Washington, DC; "Biology of Articular Cartilage: Implications for Osteoarthritis," Kenneth D. Brandt, M. D., Professor of Medicine and Head, Rheumatology Division; Director, Indiana University Multipurpose Arthritis Center, Indianapolis; and "Use of Estrogens in Post-Menopausal Women," Bruce S. Chertow, M. D., MU Professor of Medicine and Chief, Section of Endocrinology and Metabolism, Department of Medicine; and Chief, Nuclear Medicine, VA Medical Center, Huntington;

Saturday Afternoon (Common Problems Encountered in Office Practice) — "Acute Asthma," L. Blair Thrush, M. D., Clinical Associate Professor of Allergy and Clinical Immunology, Department of Medicine, WVU Charleston Division; and "New Techniques in the Management of Urinary Calculi," Stanley J. Kandzari, M. D., WVU Professor of Urology, Morgantown;

Sunday Morning (Symposium on the Management of Acute Myocardial Infarction) — "Current Trends in the Treatment of Acute Myocardial Infarction," Robert J. Marshall, M. D., Clinical Professor of Medicine, WVU and MU schools of medicine, Huntington; "Thrombolysis in Acute Myocardial Infarction," Robert C. Touchon, M. D., MU Associate Professor of Medicine; and "Angioplasty," Stafford G. Warren, M. D., Clinical Professor of Medicine, WVU Charleston Division.

CME Credit, Registration

The conference has been approved for 15 and one half credit hours in Category 1 by MU, and for 12 Prescribed hours by the American Academy of Family Physicians.

The conference registration fee is $75 for WVSMA members and $100 for non-members.

For advance registration, make checks payable to West Virginia State Medical Association and mail to the Association at P. O. Box 4106, Charleston, WV 25364.

Tours Of Cancer Care Center At CAMC Offered

A special tour of Charleston Area Medical Center's new Cancer Care Center of Southern West Virginia will be offered Friday evening, January 24, following the first session of the 19th Mid-Winter Clinical Conference.

The tour will begin at 5:30 P. M. with wine and hors d'oeuvres served in the new cancer treatment facility, located at CAMC's Memorial Division.

CAMC will provide free bus service between the main entrance of the Charleston Marriott and the Cancer Care Center beginning at 5:15 P. M.

The tour replaces the previously announced cash bar.

All conference attendees and their spouses are invited.

Program Committee

In addition to Doctor McMillan, members of the Program Committee are Drs. Maurice A. Mufson, Huntington; Joseph T. Skaggs, Charleston; C. Carl Tully, South Charleston; Richard G. Starr, Beckley; and John W. Traubert, Morgantown.

Scientific Exhibits

Family Medicine Foundation of West Virginia

West Virginia Division of Vocational Rehabilitation

West Virginia State Health Department, Bureau of Venereal Disease Control

West Virginia Department of Health, Division of Health Education

Social Security Disability Determination Section of the West Virginia Division of Vocational Rehabilitation

West Virginia University Drug Information Center

West Virginia University School of Medicine, Continuing Medical Education

Marshall University School of Medicine, Department of Obstetrics and Gynecology

Medical, Part B, Nationwide Insurance Company

Marshall University School of Medicine, Department of Medicine, Division of Gastroenterology

Commercial Exhibits

Charleston Area Medical Center Strategic Ventures, Inc., Charleston

McDonough Caperton Shepherd Group, Charleston

Ramsey Medical Systems, Charleston

E. R. Squibb & Sons, Arlington Heights, IL

McLain Surgical Supply, Inc., Charleston

Boehringer Ingelheim Ltd., Ridgefield, CT

McDonough Caperton Systems, Charleston

The Upjohn Company, Kalamazoo, MI

Foster Medical Corporation, Home Health Care Division, Charleston

Provider Office Services and Telecommunications, Inc., Charleston

Wyeth Laboratories, Philadelphia, PA

Nuclear Medicine Services, Inc., Charleston

Abbott Laboratories, North Chicago, IL

St. Francis Hospital, Charleston

WV Hospital Social Work Directors, Charleston

Searle Pharmaceuticals, Inc., Chicago, IL

Geigy Pharmaceuticals, Summit, NJ

Glaxo, Inc., Research Triangle Park, NC

Whitman Computer Systems, Inc., Logan

Smth Kline & French Laboratories, Philadelphia, PA

Sandoz/Dorsey Pharmaceuticals, East Hanover, NJ

Mandatory Assignment Law Challenged By AMA

Massachusetts law requiring physicians to accept assignment for all services to Medicare beneficiaries has been challenged in a lawsuit filed by the AMA and the state medical society. The law allows physicians to charge no more than Medicare's 'reasonable charge' for services to beneficiaries.

Physicians must agree to comply with the law as a condition of licensure.

Gov. Michael S. Dukakis signed the measure into law November 12.

Under a pre-existing schedule, all physicians in the state are required to renew their certificates of registration by January 15.

Complaint Filed

The AMA filed a complaint November 19 asking a U.S. district court to declare the new state law unconstitutional because it purports to regulate a federal program. In addition, it conflicts with federal Medicare legislation that authorizes physicians to collect more than the 'reasonable charge' set by the U.S. Department of Health and Human Services.

"It is inappropriate for a state to tie the privilege of licensure to mandatory acceptance of the Medicare-determined amount," AMA Executive Vice President James H. Sammons, M. D., said in a statement. "At the present time, Medicare beneficiaries in Massachusetts benefit from a very high rate of acceptance by physicians of the Medicare-determined amount. This legislation could discourage physicians from participating in the Medicare program," Doctor Sammons said.

Charleston Otologist Study Group Member

William C Morgan, Jr., M. D., Charleston otologist, recently became a member of the Otosclerosis Study Group at its 1985 Annual Meeting in Atlanta.

The group met in conjunction with the 1985 annual meeting of the American Academy of Otolaryngology —Head & Neck Surgery Foundation.

The purpose of the study group is to promote research and exchange ideas with fellow physicians interested in otosclerosis.

Mason Doctor Wants Doctor Bennett Credited

Doctor Grubb holds one of two log books used by Doctor Bennett. The entries in the log book, which start in 1801, "shows he treated Colonel Charles Lewis and the Clemens Family (Mark Twain)," Doctor Grubb said.

The Journal article about Dr. Jesse Bennett, who performed the first successful New World cesarean section and oophorectomy in 1794, has sparked interest both in this country and abroad.

The dramatic account of Doctor Bennett's medical feat, conducted in a pioneer cabin near Staunton, Virginia, appeared in the October, 1984, issue of *The Journal* ("The First Successful Cesarean Section and the First Oophorectomy in the Americas").

The author was Dr. John W. Grubb, Point Pleasant obstetrician-gynecologist, who currently is leading a campaign to have Doctor Bennett officially recognized as having conducted the first successful cesarean section in the Americas.

Even though the Medical Society of Virginia also has recognized Doctor Bennett's accomplishment, Doctor Grubb said, official credit has been given the cesarean operation performed in 1827 by Dr. John Richmond of Newton, Ohio—33 years after Doctor Bennett's surgery.

Doctor Bennett's patient was his own wife, and he saved both her and her child, a daughter.

Shortly after, in 1797, Doctor Bennett and his family moved to Point Pleasant where he lived and practiced medicine until his death there in 1842.

English Reader Writes

Doctor Grubb received a letter last October from an English doctor* who had read Doctor Grubb's article in *The Journal.* The English doctor said he had researched and written a paper (which he enclosed) about the first cesarean section performed in the United Kingdom a year before Doctor Bennett's operation—1793.

"But this operation wasn't successful," said Doctor Grubb. "The baby died."

According to the English doctor, the 1793 surgery in England was done by James Barlow, a Lancashire surgeon, on Jane Foster, a woman about 40 years old.

**Dr. N. H. Naqvi, Consultant Anaesthetist, Bolton General Hospital, Farnworth, Bolton, England.*

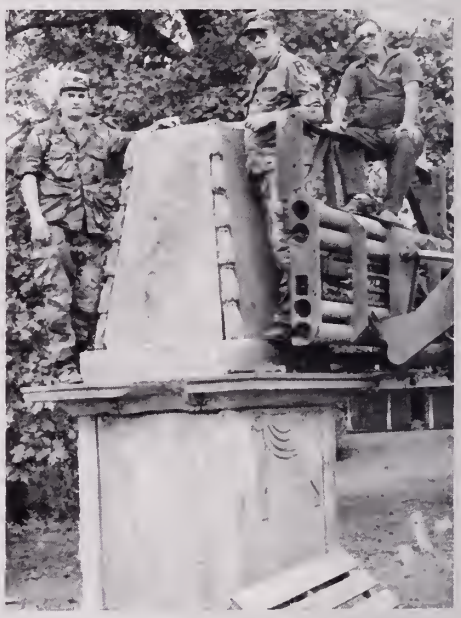
Doctor Bennett's tombstone as Doctor Grubb found it in June, 1983, in Bennett Cemetery, a cemetery neglected and out of reach of the public. "It took my wife and myself two days to locate Doctor Bennett's original grave site as it was so hidden in the brush," Doctor Grubb said.

Readers of Doctor Grubb's article will recall that the Bennetts' daughter, Maria, grew up, married, and lived until the age of 77. His wife lived "to accompany him to the Ohio Valley."

Doctor Grubb said he has contacted the AMA for assistance in "changing the record books" concerning Doctor Bennett.

Body Moved

The Point Pleasant doctor's keen interest in Doctor Bennett continues unabated. He was instrumental in having Doctor Bennett's body exhumed and moved, along with the massive marker, to a more accessible cemetery in Point Pleasant last October. "It took about two years to get



"After legal and court proceedings and procedures through the State Health Department, I received permission to move the remains from the site to the Pioneer Cemtery in downtown Point Pleasant," Doctor Grubb said. He was able to get the National Guard to take on the task of dismantling, moving and reassembling the tombstone in October, 1985. A reburial ceremony was conducted by a local minister in the presence of a small group consisting of Doctor and Mrs. Grubb, members of the Daughters of the American Revolution, and other interested citizens.

all the paper work done and get permission to move the body," he said.

He now is making arrangements for a sealed historical display case to contain Doctor Bennett's log books and portrait to be placed in the lobby of Pleasant Valley Hospital in Point Pleasant as a project of the Mason County Medical Society.

Feature stories about Doctor Grubb's *Journal* article, the response by the English doctor, and the moving of Doctor Bennett's body appeared last year in the June 21 and November 8 issues of *The New West Virginia Review* (Jim Comstock, Editor), successor to the former *West Virginia Hillbilly*, in Richwood.

The 1985 WVSMA Annual Meeting printed program included the portrait of Doctor Bennett and was dedicated to his memory.

Doctor Bennett was 25 when he performed his historic surgery. He became a distinguished citizen, soldier and surgeon in Mason County and, as noted in Doctor Grubb's article, was one of the jurors in the trial of Aaron Burr.

In Patient Relations

Golden Mountaineer Program Opportunity

Physicians, perhaps more than any other group, are keenly aware of the problems faced by their elderly patients both from a health as well as financial standpoint.

Physicians who treat elderly Medicare patients are also keenly aware of the impact of the current Medicare freeze on payment levels for physician services. Doctors know that Medicare pays a percentage of the actual charges submitted and that the fee profiles on which those payments are based are garnered from charges submitted in 1983.

Nonetheless, physicians remain sensitive to the needs of their elderly patients, and several hundred West Virginia physicians extend that sensitivity by recognizing the Golden Mountaineer discount program.

President David Z. Morgan, M. D., prepares to field a question during the WVSMA news conference held December 5 to announce the results of the Association survey (See pull-out insert in this issue of The Journal) of members on professional liability experience. The news conference was well attended by the media at the Capitol Building in Charleston.

While the Council of the West Virginia State Medical Association stopped short of urging participation in the Golden Mountaineer program since it is well recognized that every physician who accepts Medicare assignment is already offering a discount for senior citizens, it did endorse the concept in principle.

Thus, any West Virginia physician can decide whether to participate in the Golden Mountaineer program and offer a special discount to senior citizens.

With that in mind, presented herewith are the basic operational tenets of the program:

- The purpose of the Governor's Golden Mountaineer Discount Program is to assist in the economic security of the senior citizens in West Virginia by expanding their purchasing power.
- The Program is administered by the West Virginia Commission on Aging backed by an Advisory Committee of businessmen and other community leaders.
- Your participation in the Program is entirely voluntary. You choose the size of the discount you wish to offer. The State of West Virginia will provide the necessary decals, posters, and other materials to help you let your customers and potential customers know that you are participating in the Program.
- You can withdraw from the Program at any time, and you can increase or decrease the discount you offer to senior citizens as your business circumstances indicate. You may offer a discount on select goods or services, but you don't have to offer a discount on everything you provide or sell. In addition, you may wish to begin by providing the discount only on selected days.
- Many merchants and professionals have experienced an increased volume of business not only from senior citizens but from family members and friends who do not receive a discount but who wish to support the merchant or professional.
- To ensure that only senior citizens receive the special discount, the State of West Virginia has issued a Golden Mountaineer Senior Citizens' Discount card to over 362,000 West Virginians sixty (60) years of age or older. The Card is easily recognized and is your guarantee that the person to whom it was issued is entitled to participate in the Golden Mountaineer Program.

Physicians having further questions or desiring a participating member enrollment form can contact:

Mike Marlowe, Director
Golden Mountaineer Program
for Senior Citizens
The State Capitol
Charleston, WV 25305

WVSMA would be interested in knowing of members who are participating in the program presently or who sign up in the future. Please copy WVSMA with any decision made to participate in the program.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Interim Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/ Continuing Medical Education, and J. Zeb Wright, Ph.D., Coordinator, Continuing Education, Department of Community Medicine, WVU Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.*)

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained from: Office of Continuing Medical Education, MU School of Medicine, Huntington 25701; Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

West Virginia University

Feb. 9-12, Snowshoe Mountain Resort, Fourth Annual Snowshoe Vascular Surgery Conference

Feb. 22-23, Charleston, Advance Cardiac Provider Course

March 7-8, Charleston, Oncology Update 1986

March 21, Charleston, Annual Newborn Day

April 11-12, Charleston, Cardiac Rehabilitation

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — Jan. (vacation)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M. — Jan. 8, "Update: Coronary Heart Diseases," David L. Namay, M. D.

Feb. 12, "Pediatric Allergies," Chandra Kumar, M. D.

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — Jan. (vacation)

Madison, Boone Co. Health Dept. — Conference Room, 2nd Tuesday, 7-9 P. M. — Jan. (vacation)

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — Jan. (vacation)

Summersville, Summersville Memorial Hospital, 630-8:30 P. M. — Jan. (vacation)

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — Jan. (vacation)

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — Jan. (vacation)

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — Jan. (vacation)

WVSMA Loss Control Seminars For 1986

WVSMA Loss Control Seminars for 1986 are as follows:

March 8, Lakeview, Morgantown; April 19, Oglebay/Wilson, Wheeling; May 10, Sheraton Inn, Martinsburg; June 18, Marriott, Charleston; September 20, Holiday Inn, Parkersburg; October 18, Ramada Inn, Beckley, and November 8, Holiday Inn, Huntington.

Medical Meetings

Jan. 13-15—Consensus Development Conference on Health Implications of Smokeless Tobacco Use (sponsored by NIH), Bethesda, MD.

Jan. 23-25—Neurosurgical Society of the Virginias, Hot Springs, VA.

Jan. 24-26—19th Mid-Winter Clinical Conference, Charleston.

Feb. 2-5—Am. Hospital Assoc., Washington, DC.

Feb. 2-7—Am. College of Medical Imaging, Lake Tahoe, NV.

Feb. 20-25—Am. Academy of Orthopaedic Surgeons, New Orleans.

Feb. 21-23—Va. Chapter, Am. Academy of Pediatrics; Va. Pediatric Society, Williamsburg.

March 5-9—Am. Medical Student Assoc., Washington, DC.

March 9-13—Am. College of Cardiology, Atlanta.

March 13-16—Physicians for Social Responsibility, Philadelphia.

March 15-18—Southeastern Surgical Congress, Louisville, KY.

March 22-26—Am. Academy of Allergy & Immunology, New Orleans.

April 3-6—Am. College of Preventive Medicine, Atlanta.

April 13-17—Am. Assoc. of Neurological Surgeons, Denver.

April 14-18—Am. Roentgen Ray Society, Washington, DC.

April 27-May 3—Am. Academy of Neurology, New Orleans.

May 5-8—Am. College of Obstetricians & Gynecologists, New Orleans.

May 7-9—Am. Society for Artificial Internal Organs, Anaheim, CA.

May 11-14—Am. Thoracic Society, Kansas City, MO.

May 11-16—Am. Society of Colon & Rectal Surgeons, Houston.

May 29-30—Am. Society of Transplant Surgeons, Chicago.

May 29-June 1—VA Society of Ophthalmology, Norfolk.

Aug. 12-17—119th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

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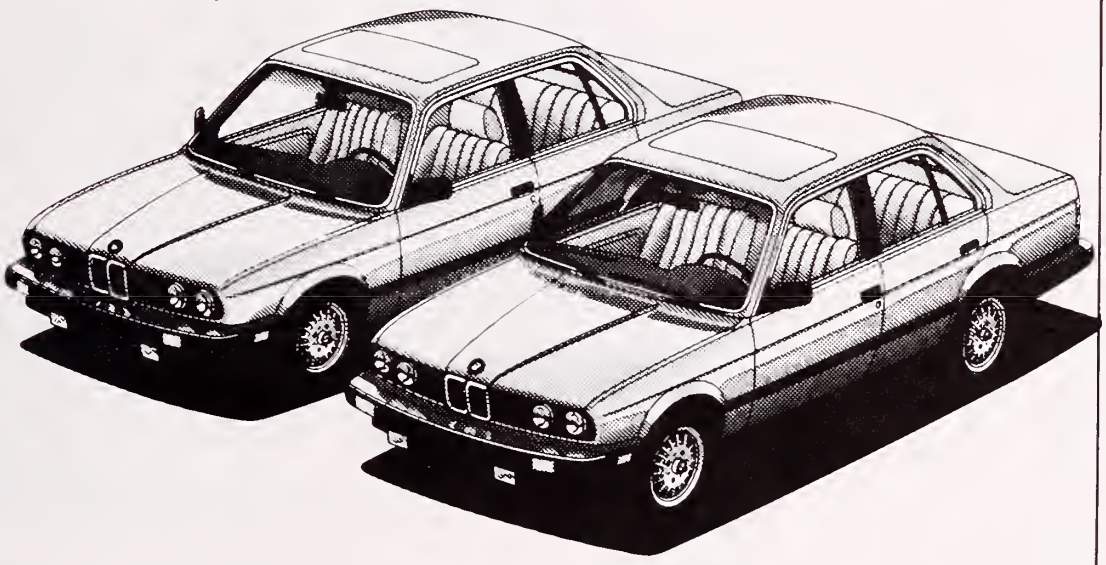

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WVU Medical Center News

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

State Doctors' Response 'Encouraging'

MARS Handles 500 Calls A Month

"We're handling 400 to 500 calls a month and 25 a day is now fairly routine."

That's how West Virginia physicians have responded to the news MARS system at WVU, compared with an average of about 250 calls a year under the prior system.

MARS stands for Medical Access and Referral System, and its job is to make Medical Center expertise in patient care available to physicians on a one-to-one basis. They can call to ask advice, refer a patient to a specialist, check on a referred patient, even find out about new services and equipment at the Medical Center.

MARS started in late August, and Director Michael J. Lewis, M. D., said that at present rates it will handle more than 5,000 calls the first 12 months, 20 times the old volume.

"Despite this very encouraging growth there are still physicians out there who aren't aware of our service, so there's plenty of potential for serving more doctors and patients," said Doctor Lewis, Associate Professor in the School of Medicine's Department of Family Practice.

Doctor Lewis brought nine years of experience as a family doctor with him when he joined the medical faculty last April — so he knows first-hand the help professionals can use. A one-time research scientist for Union Carbide in Charleston, he received his medical degree from WVU in 1974 and practiced at St. Marys in Pleasants County.

Incoming calls occupy MARS secretary Dawn Prickett while the system's Medical Coordinator, Dr. Michael Lewis, and Program Manager Alita Humphrey work in the background.

The MARS operators have exact call schedules for each department and division and can usually make immediate contact. The service operates 24 hours every day and all calls go to faculty members, not to residents.

The MARS name is being plugged because it also represents the phone number physicians call to reach the MARS operators. "A health professional can dial 1-800, then WVA-MARS and the call will come right to us," he said.

"We want to make that name-number part of the thought process of physicians."

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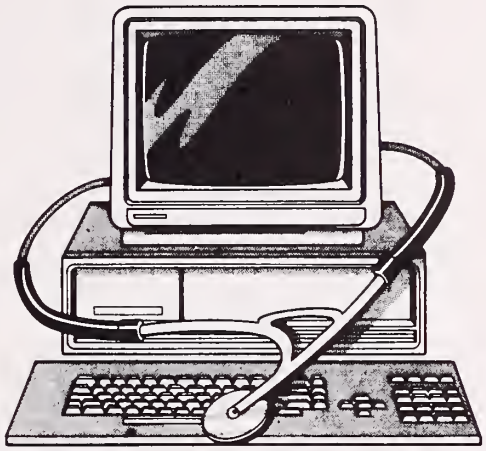

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Obituaries

LEONARD M. ECKMANN, M. D.

Dr. Leonard M. Eckmann of Charleston died on December 5 at his home. He was 71.

Doctor Eckmann was a family physician in South Charleston for 47 years, and was a charter staff member at Thomas Memorial Hospital there.

He conducted a medical radio program.

An Army veteran of World War II, his letters of World War II are currently being published in a state magazine.

Doctor Eckmann, born in New York City, received both his undergraduate degree and M. D. degree (1937) from New York University. He interned at Samaritan Hospital in Troy, New York, and took his residency at St. Francis Hospital in Charleston.

He was an honorary member of the Kanawha Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include the wife, Muriel Eckmann; a daughter, Mrs. Marjorie Cahn of Worcester, Massachusetts; a son, Stuart Eckmann of Mountain View, California; the father, Julius Eckmann of Riverside, California; a sister, Mrs. Dorothy Solomon of West Palm Beach, Florida, and a brother, Bert Eckmann of Riverside.

JOE W. RHUDY, M. D.

Dr. Joe W. Rhudy of Morgantown died on November 15. He was 46.

Doctor Rhudy was the founder and senior partner of the Morgantown Internal Medicine Group.

He was Chief of the Department of Internal Medicine of Monongalia General Hospital in 1972 and in 1974.

Born in Crumpler (McDowell County), his early education was completed in Franklin, which he considered his home.

He was graduated from Berea (Kentucky) College, and received his M. D. degree in 1965 from West Virginia University School of Medicine.

His specialty training in internal medicine was completed at Charleston

(Continued on Page xxv)

Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8½ by 11 in.) white paper. Wide margins at least 1¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 4106, Charleston, W. Va. 25364.

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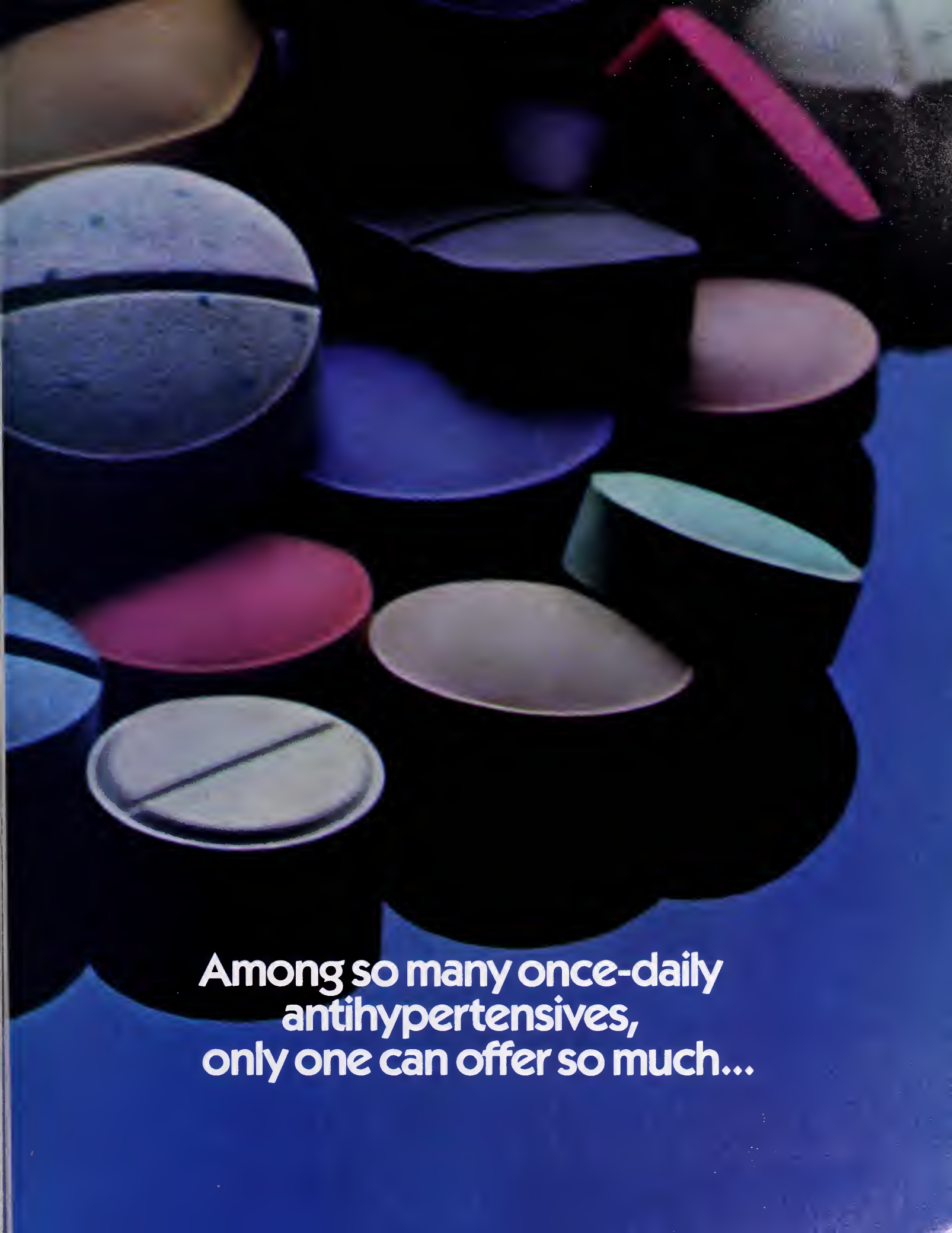
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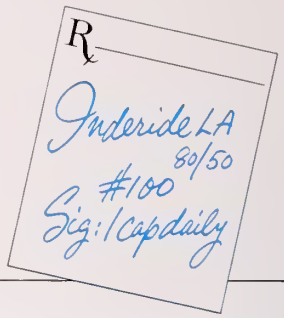

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BRIEF SUMMARY *(FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR.)*

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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL®):
Propranolol is contraindicated in: 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide:
Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL®):
CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely; or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide:
Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL®):
GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

Hydrochlorothiazide:
GENERAL. Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs, irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS. Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY. Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS. Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL®):
Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular. Bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System. Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal. Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic. Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory. Bronchospasm.

Hematologic. Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune. In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous. Alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:
Gastrointestinal. Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

Central Nervous System. Dizziness, vertigo, paresthesias, headache, xanthopsia.

Hematologic. Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

Cardiovascular. Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity. Purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis), fever, respiratory distress, including pneumonitis, anaphylactic reactions.

Other. Hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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County Societies

CENTRAL WEST VIRGINIA

The Central West Virginia Medical Society met on October 23 in Buckhannon at the Bicentennial Motel.

Dr. Stephen M. Smith reported on CME.

Dr. John A. Mathias reported on his final meeting as a member of the WVSMA Council, and emphasized the importance of WESPAC contributions.

Dr. R. Paul Bennett announced that a National Health Service Corps physician, Geoffrey Bowers, will be joining him in practice in Webster Springs.

New officers were elected. — Greenbrier Ahmond, M. D., Secretary-Treasurer (1985).

FAYETTE

The Fayette County Medical Society met on November 6 at the Oak Hill Holiday Inn.

Dr. David Z. Morgan of Morgantown, WVSMA President, was the guest speaker. Everybody enjoyed his most informative talk.—Saghir R. Mir, M. D., Secretary-Treasurer.

WESTERN

West Virginia Insurance Commissioner Fred E. Wright was the guest speaker for the meeting of the Western Medical Society on November 12.

The meeting was held at Roane General Hospital in Spencer.

Commissioner Wright gave a comprehensive review of the past and present facts about insurance, especially narrowing down on liability insurance.

He said he thought tort reform definitely is needed in West Virginia since it is the only state that has not had this legislation.

His talk was followed by a question-and-answer period.

It was agreed, on a voluntary basis, to place stamped envelopes in our offices for the use of patients in sending messages concerning the malpractices insurance crisis to their legislators.—Ali H. Morad, M. D.,

McDOWELL

The McDowell County Medical Society met on November 13 at the Bonanza Restaurant in Welch.

The guest speaker was Dr. John Huntwork of Huntington, who discussed "Osteoarthritis and the Elderly," as seen by the primary care physician.

Doctor Huntwork concentrated on non-steroidal and anti-inflammatory drugs and their use for particular conditions and patients.

Dr. Vernon J. Magnus, President, gave a brief report on his volunteer medical work in Haiti.—John S. Cook, M. D., Secretary.

MINGO

The Mingo County Medical Society met October 9 at the Williamson Memorial Hospital.

Discussion centered around candidates for the state Senate, drinking and driving, medicine's image, the special session of the WVSMA House on November 3, and increases in malpractice insurance rates.

(Continued on Page xxv)

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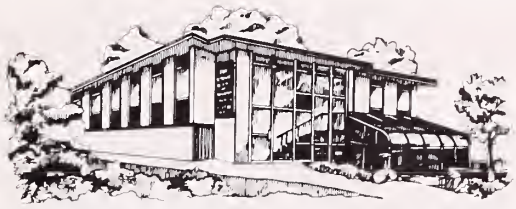

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OBITUARIES—*Continued*

Memorial and WVU hospitals, and he was Chief Resident in Internal Medicine in 1971.

Following a fellowship in pulmonary diseases, Doctor Rhudy began practice in Morgantown.

He was a member of the American College of Physicians, Monongalia County Medical Society, West Virginia State Medical Association and American Medical Association, and a Fellow of the American College of Chest Physicians.

Survivors include his mother, Brooke H. Rhudy; his wife, Nancy T. Rhudy; two sons, David W. and Paul W. Rhudy; a daughter, Susan Jo Rhudy, and two sisters, Louise Fawcett of New York City and Sara Taylor of Ronceverte.

COUNTY SOCIETIES—*Continued*

The Society met again on November 13 at Williamson Memorial Hospital.

New officers for 1986 were elected.

Dr. Diane Shafer, member of the WVSMA Council, reported on the November 2 Council meeting and the special session of the House November 3.

The Society approved donations of $100 to Southern West Virginia Community College, $50 to the Salvation Army, and $100 to the Tug Valley Recovery Shelter.—Diane E. Shafer, M. D., Secretary-Treasurer.

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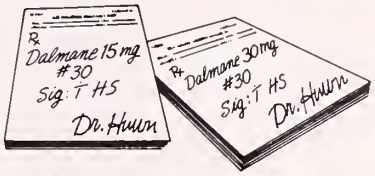
References: **1.** Kales J, *et al: Clin Pharmacal Ther 12* 691-697, Jul-Aug 1971. **2.** Kales A, *et al. Clin Pharmacal Ther 18*:356-363, Sep 1975. **3.** Kales A, *et al: Clin Pharmacal Ther 19*:576-583, May 1976. **4.** Kales A, *et al: Clin Pharmaccl Ther 32*:781-788, Dec 1982. **5.** Frast JD Jr, DeLucchi MR: *J Am Geriatr Sac 27*:541-546, Dec 1979. **6.** Dement WC, *et al: Behav Med*, pp 25-31, Oct 1978. **7.** Kales A, Kales JD: *J Clin Psychapharmacal 3*:140-150, Apr 1983. **8.** Tennant FS, *et al:* Sympasium an the Treatment af Sleep Disarders, Telecanference, Oct 16, 1984. **9.** Greenblaff DJ, Allen MD, Shader RI: *Clin Pharmacal Ther 21*:355-361, Mar 1977.



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West Virginia Medical JOURNAL

February, 1986 West Virginia State Medical Association Volume 82 Number 2

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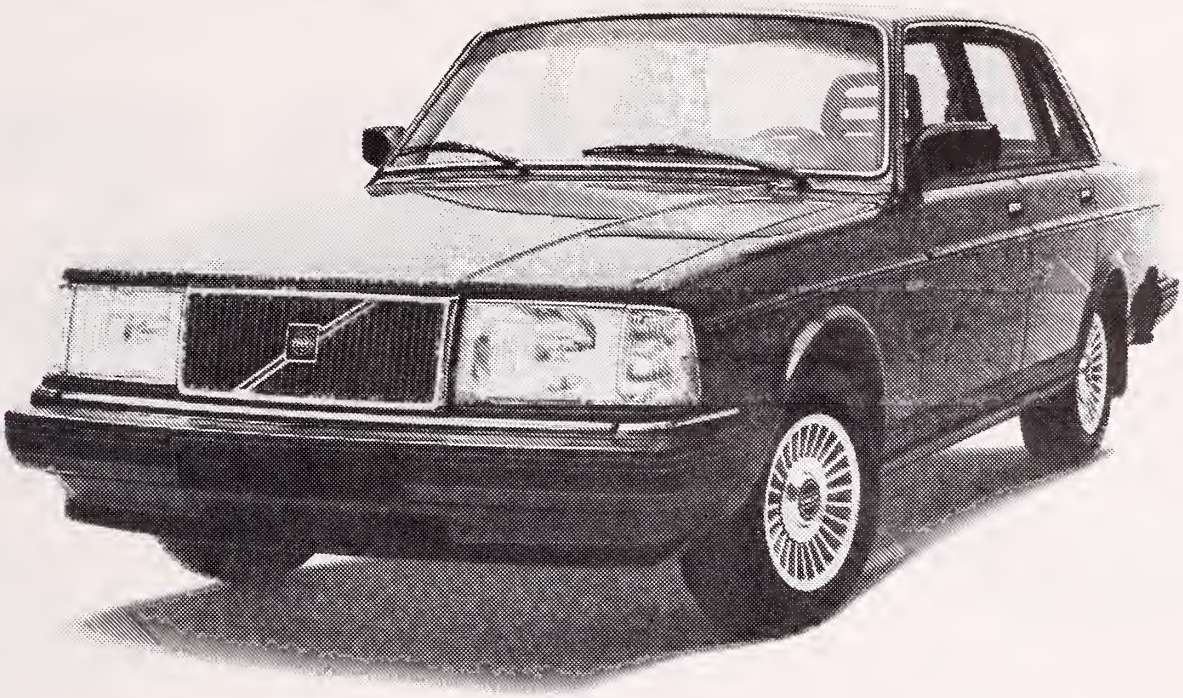

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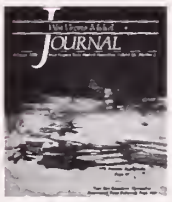

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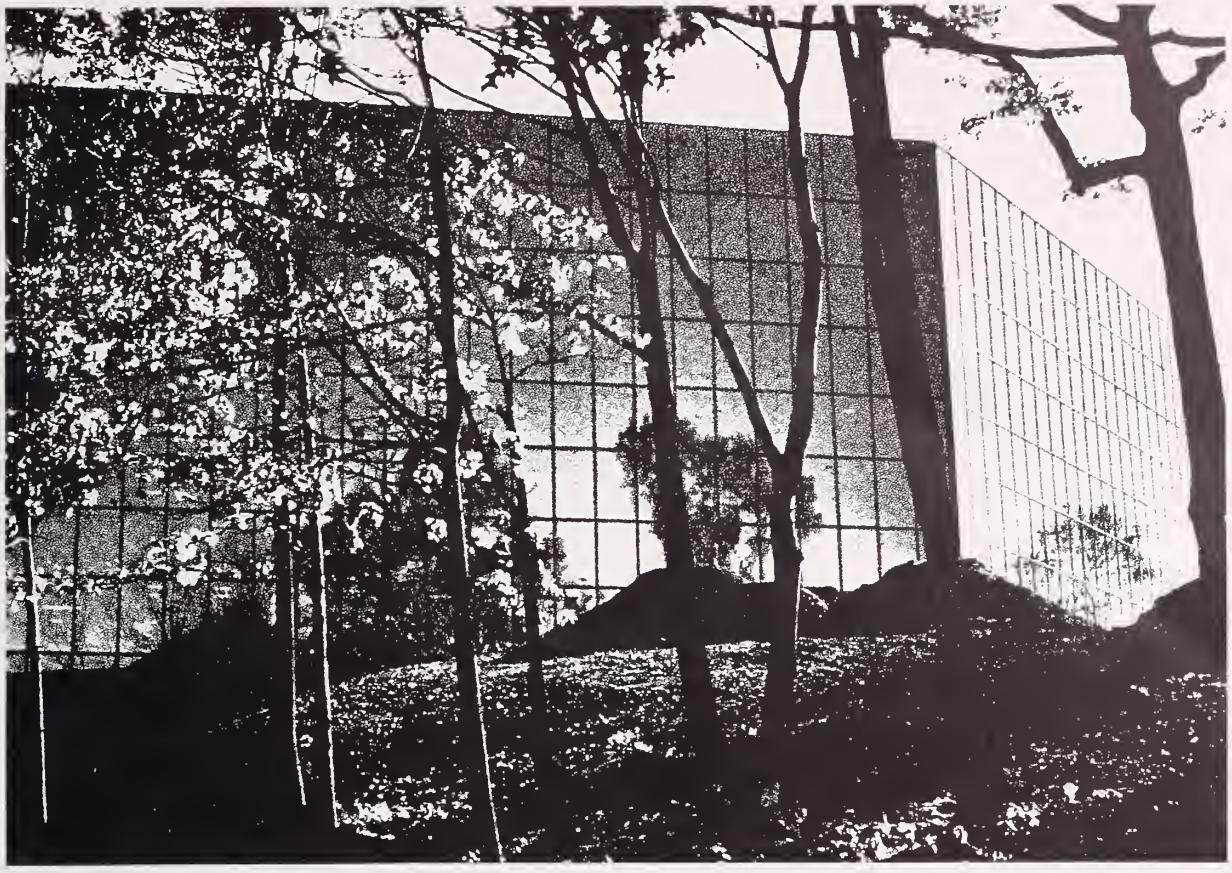

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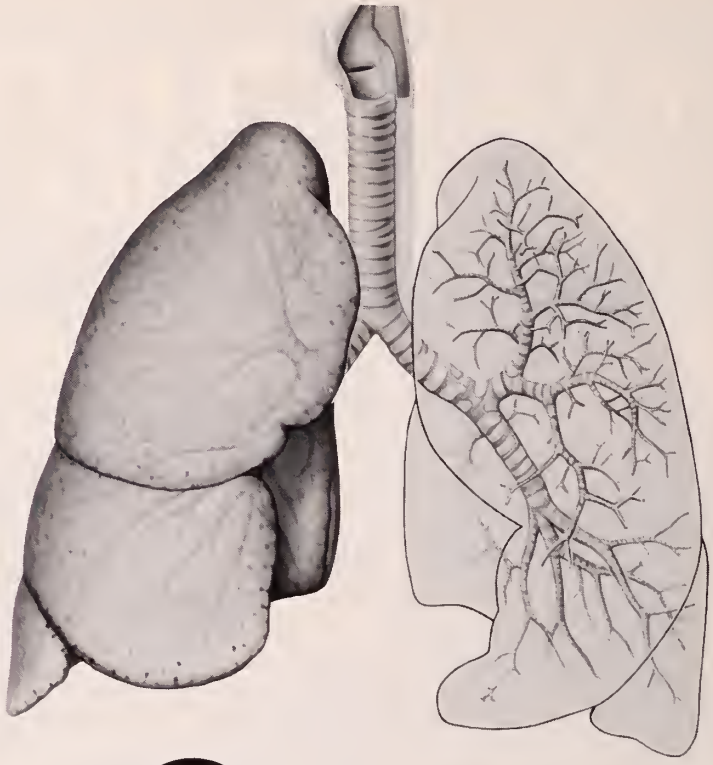

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H. influenzae, H. influenzae, S. pneumoniae, S. pyogenes
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Brief Summary: Consult the package literature for prescribing information.

Indications and Usage: Ceclor* (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins), therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor* (cefaclor, Lilly) occurs, the drug should be discontinued, and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made; because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — Pregnancy Category B — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor* (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity reactions have been reported in about 1.5 percent of patients and include morbiliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions, (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count, predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[061782R]

Note. Ceclor* (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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* **WARNING**

This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. Associated widened QRS complex or arrhythmia requires prompt additional therapy. Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CO.) and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

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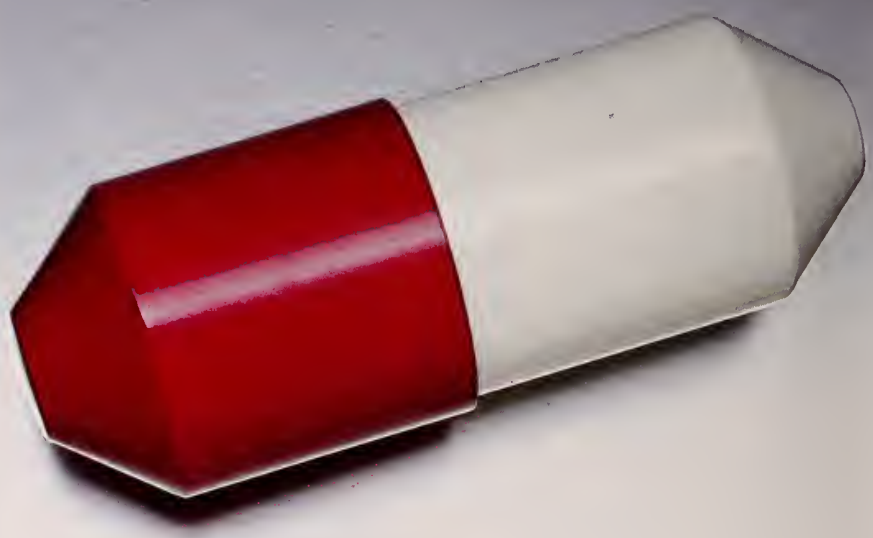

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Scientific Newsfront

Treatment Of Lumbar Disc Disease, 1986

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Chemonucleolysis was introduced for the treatment of lumbar disc disease without rigorous comparisons to surgery, the prior standard of care. Our review of the literature and our own experience suggest that chemonucleolysis is an effective treatment for lumbar disc disease but, in order to fully understand its role in patient care, a prospective, randomized study of adequate size and sophistication to compare injections with surgery is indicated.

Introduction

Lumbar disc disease is one of the most prevalent health problems in the United States and second in frequency only to upper respiratory infections as a cause of lost workdays. It involves hundreds of thousands of victims each year who lose the productivity of millions of workdays, and generates medical and legal fees probably reaching billions of dollars a year. The vast amount of information available about lumbar disc disease has been well outlined in recent reviews in texts,[7] monographs on spine disease,[15] monographs on lumbar disc disease including discussions of chemonucleolysis, [3,11,13,18] and articles on specific topics.

One of the main difficulties with this literature has been the problem of study design and statistical validation. Thus, there are only a few studies which describe with any adequacy the natural history of low back pain and/or disc disease, [3,6] the effectiveness of various types of conservative therapies,[10] and the effect of surgery[3,8,18] or chemonucleolysis.[3,12,16] Indeed, a recent review of 26 articles describing 19 series of chemonucleolysis provides a critique on major problems concerning the design and validity of these studies.[10] In an addendum the author describes two subsequent papers which he feels do demonstrate that chymopapain is superior to a placebo.

There are approximately 200,000 operations for lumbar disc disease each year in the United States. However, it is estimated that approximately 45-60,000 of these patients requiring intervention were treated instead by chymopapain injection in the 12 months after the drug was released by the FDA in December, 1982. This change came about despite the limited amount of information about chemonucleolysis available at the time and the fact that there was no randomized trial comparing chemonucleolysis to surgery, the current standard of care.

We therefore felt compelled to review our preliminary experience with this technique.

Materials and Methods

A retrospective chart review of patients on the Neurosurgical and Orthopedic services at West Virginia University Medical School who had undergone chemonucleolysis was carried out. There were 40 patients with symptoms and signs of L5 or S1 radiculopathy, who had discs demonstrated at the appropriate levels by computerized tomography and/or myelography, and who were injected between March, 1983, and November, 1984. Of these, 31 were males and nine were females. They ranged in age from 16 to 60. Sixteen patients were laborers. Four females were housewives. Two males were students.

The injections were considered successful if the patient returned to work or, in the case of the housewives and students, to their normal activities. However, patients engaged in manual labor were encouraged not to return to work for three months to permit "healing." Patients who continued to have intractable pain at two weeks were considered failures, and were offered alternative treatment, generally surgery.

An attempt also was made to see whether the reasons for the failures could be determined from a retrospective analysis of the radiologic studies. The films of two patients were not available for review. One of these patients had a successful chymopapain injection and the other failed. Of the remaining 38 patients, all had plain radiographs of the lumbosacral spine; 25 had myelograms; 28 had computed tomography (CT), and 15 had both myelograms and CT. In six cases, CT was performed following myelogram (CT with contrast). Thirty-five patients had discograms at the time of chemonucleolysis.

The radiologic examinations were reviewed by an experienced radiologist who did not have information on the outcome of chemonucleolysis in these patients. Bony and disc abnormalities were noted. The cases were classified with regard to bony degenerative changes based on the presence or absence of scoliosis, end plate sclerosis, osteophyte formation, apophyseal joint narrowing and/or sclerosis both at the level of injection and in general for other levels. It was planned to group the findings into four grades—minimal, mild, moderate, and severe. Disc abnormalities, including disc space narrowing, vacuum sign, and size and position of herniation were also noted.

Results

Successful injections were seen in 28 of 40 (70 per cent) patients. Time to return to work or usual activities ranged from two weeks to six months (Table 1). Ten of 12 patients in whom injection was unsuccessful were operated on, eight successfully. Findings at surgery included bulging discs, sequestered discs and spinal stenosis. Thus a total of 36 of 40 (90 per cent) of all patients eventually had a successful outcome. There were no complications in any patient.

Successful injections were seen in 28 of 40 (70 per cent) patients. Time to return to work or usual activities ranged from two weeks to six months (Table 1).

Review of the radiologic studies revealed that 24 patients showed minimal-to-mild degenerative changes, and 14 patients demonstrated moderate degenerative changes. None of the patients showed severe degenerative changes. Chemonucleolysis failed in eight of 24 (33 per cent) patients from the first group and three of 14 (21 per cent) patients from the second group. Therefore, the presence or absence of even moderate degenerative changes did not affect the success rate in this small group. There were no statistically significant differences in the size or position of the herniated disc in the successful and failed group except for one patient who had a complete block on myelogram and failed.

Discussion

Patients with lumbar disc herniation treated conservatively will have a satisfactory outcome in between 30 per cent[6] and 67 per cent[3] of cases or perhaps even more.[2] Those with surgery may have a good result in 86 per cent[3] to 88 per cent[8] or more. Chemonucleolysis may result in a good outcome in more than 73 per cent[12] to 80 per cent[3] to 90 per cent[5] of well-chosen patients (Table 2). However, even in well designed studies, end points may differ, and detailed information may not be published.

After surgery, failure rates are two to 17 per cent, and recurrence rates perhaps five per cent.

Failures, recurrences and complications have been evaluated after both surgery and chemonucleolysis. After surgery, failure rates are two to 17 per cent, and recurrence rates perhaps five per cent.[7,11] Mortality rates are very low, 0.03 per cent (4/15,378), according to one source.[14] Major complications include injury to the great vessels or abdominal viscera, infections (most significantly discitis), damage to dura or neural elements, instability, secondary stenosis, ileus, urinary retention, atalectasis, and deep vein thrombosis and pulmonary emboli.[11] After chemonucleolysis, failure rates may be 20 to 30 per cent and recurrence rates may be 1.4 per cent.[13] Mortality rates of 0.03 per cent (16/60, 000),[17] 0.04 per cent (11/29,075)[1] and 0.07 per cent (13/17,480)[1] have been reported. Major complications are anaphylaxis (0.67 per cent), neurological complications including strokes, seizures, and paraplegia sometimes due to delayed transverse myelitis (0.08 per cent), and infectious or local aseptic complications.[1] Prescreening with blood tests, pretreatment with antihistamines and steroids, use of local anesthesia, avoidance of discograms, injection of only one disc, and abortion of treatment if significant technical problems are seen have been recommended by both manufacturers of the drug and by the FDA.[4] Injection is not recommended after prior surgical treatment at the same level. Subsequent surgery has been performed in five per cent[5] to 16 per cent[3] of patients, the most common findings being a sequestered fragment or bony compression (Table 2). Surgery has usually been successful in these circumstances.

After chemonucleolysis, failure rates may be 20 to 30 per cent and recurrence rates may be 1.4 per cent.

We believe from our review of the literature and from our own experience that chemonucleolysis is an effective treatment for lumbar disc herniation. However, we feel that surgical treatment still remains the standard against which other measures should be evaluated, and that we will not know the true place for chemonucleolysis until a prospective, randomized study of adequate size and sophistication is carried out to compare the two. Such a study will require stratification by confounding factors, such as physical demands of job and status of litigation, and outcome not only by relief of symptoms and signs but also by function over time. It also will have to address issues of cumulative risks and cost as well as benefits.

TABLE 1

Week of Return to Work on Patients who had Successful Chemonucleolysis.

Week	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
			x																					
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			x		x	x		x				x	x											
		x	x	x	x	x	x	x	x		x	x	x	x				x		x				x

TABLE 2

Results of Different Therapies*

	Success-%	*Failure-%*	*Recurrence-%*	*Mortality-%*	*Second Procedure-%*
Conservative	30-67 or more				
Surgery	86-88	2-17	5	.03	
Chemonucleolysis	73-90	20-30	1.4	.03-.07	5-16

***see text for references**

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Metastatic to Retroperitoneal Lymph Nodes

Complete Extrinsic Occlusion Of The Inferior Vena Cava By Renal Cell Carcinoma

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A patient with complete extrinsic occlusion of the inferior vena cava by metastatic renal cell carcinoma involving the retroperitoneal lymph nodes is described. Preoperative CT and inferior venacavography failed to demonstrate that the obstruction was completely caused by extrinsic compression. Ultrasonography accurately distinguished between extrinsic and intrinsic obstruction of the inferior vena cava. Ultrasonography should be included in the preoperative evaluation of the inferior vena cava in patients with renal tumors in all age groups.

Obstruction of the inferior vena cava by tumor extension from renal cell carcinoma and other retroperitoneal tumors is not uncommon. Renal cell carcinomas invade the inferior vena cava in 10 per cent of patients and are the most common tumors causing occlusion of the middle third of the inferior vena cava.[1]

The obstruction is caused by a tumor thrombus which either propagates along the renal vein and into the inferior vena cava or invades the inferior vena cava directly. The thrombus may be composed of either tumor or non-tumor blood elements or a combination of the two. In contrast, complete extrinsic occlusion of the inferior vena cava by metastatic renal carcinoma to retroperitoneal lymph nodes also may occur and can be difficult to differentiate from intracaval tumor extension. Making this differentiation is important in planning surgical removal in suitable patients. A patient with such a finding is described.

Case Report

A 54-year-old man presented with hematuria. Intravenous pyelogram revealed a right renal mass. Abdominal CT scan (Figure 1) was interpreted as a renal tumor with extension into the inferior vena cava and enlarged lymph nodes surrounding the inferior vena cava. An inferior venacavogram (Figure 2) demonstrated complete obstruction of the inferior vena cava with collateral circulation through the lumbar, hemiazygous and azygous veins, but a tumor thrombus could not be clearly delineated. Ultrasonography of the abdomen was performed to evaluate the extent of thrombus in the inferior vena cava (Figures 3 and 4). The inferior vena cava was found to be extrinsically compressed by enlarged retroperitoneal lymph nodes. A small patent channel was noted in the inferior vena cava with this study.

At surgery, vascular control of the inferior vena cava was secured. The right renal tumor was confirmed but extension of tumor into the inferior vena cava was not present. The inferior vena cava was found to be surrounded by enlarged lymph nodes with apparent external compression. Upon removal of the lymph nodes the inferior vena cava changed from a collapsed state to a normal distended state. Tumor thrombus could be palpated in the proximal right renal vein

Figure 1. Computerized tomography of the abdomen showing right renal tumor and mass in the area of the inferior vena cava.

and the entire tumor and renal vein were removed with a cuff of inferior vena cava. The end of the tumor thrombus was found to be two cm proximal to the entrance of the renal vein into the inferior vena cava.

Discussion

The inferior vena cava may be divided into three anatomical sections on the basis of collateral circulation.[2] The upper inferior vena cava lies above the level of the hepatic veins.

Figure 2. Inferior venacavogram demonstrating complete obstruction of the inferior vena cava with collateral venous circulation.

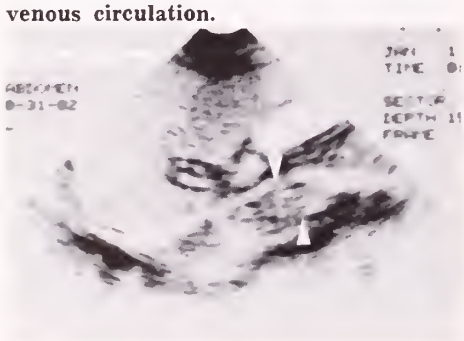

Figure 3. Longitudinal ultrasonography showing elevation of inferior vena cava (→) by tumor in retrocaval lymph nodes (▲).

The middle inferior vena cava lies between the level of the hepatic veins and the renal veins, inclusive. The lower inferior vena cava lies below the level of the entrance of the renal veins.

Renal cell carcinoma is the most common malignant tumor associated with obstruction of the middle third of the inferior vena cava. In the majority of patients obstruction is intrinsic and due to tumor thrombus. Less commonly, the inferior vena cava can suffer extrinsic compression or elevation by renal cell carcinoma.[3,4] Elevation does not normally result in total occlusion of the inferior vena cava when the etiology is renal cell carcinoma. In contrast, Wilms' tumor causes extrinsic occlusion.[5] Extrinsic compression by Wilms' tumor can result in complete obstruction of the inferior vena cava.

Other tumors known to cause extrinsic compression with occlusion of the inferior vena cava include retroperitoneal ganglioneuroblastoma, spindle cell carcinoma of the kidney, cystic embryonalmesonephroma of adrenal origin, giant folicular lymphoma, and retroperitoneal lipoma.[6]

Findings Inconclusive

In the case presented, the CT and angiographic findings were inconclusive with regard to intrinsic occlusion of the inferior vena cava. The surgical approach to control of the inferior vena cava and removal of an intracaval thrombus was hampered by incomplete diagnostic information and incomplete information on cephalad tumor thrombus propagation if present. The presence of collateral circulation was not found to be helpful in

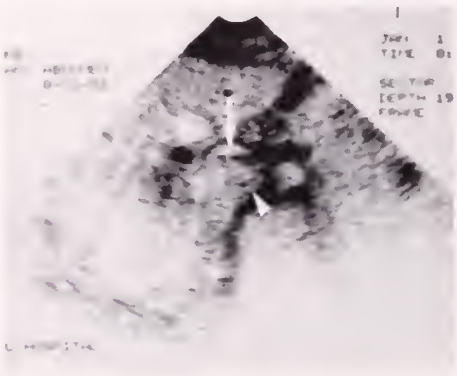

Figure 4. Transverse ultrasonography showing distinct separation between inferior vena cava (→) and retroperitoneal mass (▲).

assessing whether the obstruction was extrinsic or intrinsic in nature. Performance of cavography in the lateral decubitus position has been reported to be helpful in differentiation in the pediatric age group. The benefit of this method in the adult population has not been described. Another cause of a false positive cavogram with renal cell carcinoma is the occurrence of a valsalva maneuver during cavography.[7]

In the case presented, ultrasonography detected displacement and compression of the inferior vena cava by tumor in lymph nodes. Ultrasonography has been used in children to distinguish between tumor extension with intrinsic obstruction and extrinsic compression of the vessel.[8,9] Ultrasonography is the preferred modality to evaluate the inferior vena cava in children because it is not invasive. The use of CT and inferior venacavography has been shown to be equal in detecting vena caval involvement.[10]

Combination May be Necessary

False positives can occur with all of these modalities, as demonstrated with our patient. A combination of ultrasonography, CT, and inferior vena cavography may be necessary to clarify the diagnosis. Inconclusive results of these studies may indicate the use of a superior vena cavogram as an aid to the final selection of a surgical approach.

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Myocardial Infarction Following Carbon Monoxide Poisoning*

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CO compromises cardiovascular function several ways in patients with coronary artery disease. First, CO decreases the blood's oxygen-carrying capacity and causes tissue hypoxia. In addition, COHb reduces the threshold for ventricular arrhythmias and has a negative inotropic effect. CO also increases the thrombotic tendency by increasing platelet stickiness. In patients with coronary artery disease, even low levels of COHb may interfere critically with adequate oxygen delivery.

Carbon monoxide (CO) poisoning is known to aggravate angina, depress myocardial function, and contribute to an increased incidence of myocardial infarction in patients with coronary artery disease.

This paper will discuss the physiologic effects of CO poisoning and the clinically important effects of CO exposure in patients with coronary artery disease.

Case Report

A 59-year-old, white male presented to the Emergency Room with complaints of light-headedness, slight nausea, shortness of breath and chest pain. Earlier in the day, the patient had been working in the garage, "tinkering" with a motor vehicle with the engine running. He denied any heavy lifting or exertion and his activity level was reported to be less than the amount usually required to cause angina. During the day, the patient developed chest tightness and shortness of breath, followed by chest pain. The chest pain lasted approximately three hours. The patient typically had exertional chest pain that would be relieved by rest. This was the first time he had persisting symptoms. At first the patient thought he was having indigestion and took alka-seltzer with partial relief of the chest discomfort. Sublingual NTG in the Emergency Room promptly relieved the pain.

Past medical history was significant for diabetes of 10 years' duration and angina. Medications included insulin and Isordil.

An EKG obtained in the Emergency Room showed frequent PVCs. Vital signs upon presentation: Afebrile, P 120, Resp. 20, B/P 120/78. Physical examination was unremarkable. COHb level obtained in the Emergency Room was 19.0 per cent (nl 1.5-5.1).

The patient was admitted to CCU and serial CPK isoenzymes were obtained. There was no chest pain after admission, and the frequent PVCs resolved without anti-arrhythmic therapy. CPK isoenzymes were positive with a peak CPK MB band of 43 with a total CPK level of 331. In the Emergency Room, the patient had been placed on 100-per cent O_2 via non-rebreather mask, and the CO level fell rapidly, returning to normal in less than six hours. During the hospitalization, a limited stress test was positive with 1.5 to 2.0 mm ST segment depression in leads V_{4-6} at a moderate workload (600 kpm). Cardiac catheter subsequently was performed and revealed normal left ventricular function and significant multi-vessel coronary artery disease. The patient was discharged on nitrates for control of angina.

Discussion

CO is an odorless, colorless, tasteless gas which is nonirritating. CO exposure can occur in many industrial settings including steel and iron foundaries, petroleum refining, and paper mills. Fire fighters are often exposed to high levels of CO.[1] Garage and automotive workers are exposed to CO when working on internal combustion engines. A motor vehicle produces highest concentrations of CO when idling and decelerating; lethal concentrations can occur in an enclosed space within 10 minutes.[1] Space heaters, including gas and kerosene stoves, have become an important source of exposure with the recent trend to using supplemental sources of heat.

The greatest source of individual exposure to CO is tobacco smoke.[2] Cigarette smoke contains between 2.7 to 6 per cent CO; after inhalation and dilution with air the CO level averages about 400 ppm (parts per million). "This level is eight times greater than the maximum level of CO permitted in industry."[1]

CO is a frequent cause of illness. At least 1,500 people die each year from accidental CO poisoning and another 10,000 seek medical attention for its symptoms.[3] CO poisoning can be even more serious in those with cardiovascular disease. CO poisoning can aggravate angina, depress myocardial function and contribute to myocardial infarction.

Three Mechanisms

Inhaled CO causes tissue hypoxia via three mechanisms.[1] First, carbon monoxide combines with hemoglobin to form carboxyhemoglobin (COHb). This reduces the delivery of oxygen to the tissues. The affinity of hemoglobin for carbon monoxide is 200 to 250 times greater than its affinity for oxygen, so even low levels of CO can cause significant levels of COHb.

*Winner of first prize for Research Day case presentation, Charleston Area Medical Center/West Virginia University Medical Center, Charleston Division residency program, March 20, 1985, Charleston, West Virginia.

TABLE 1
Symptoms of Carbon Monoxide Poisoning

COHb Concentration (%)	*Signs and symptoms*
0-10	none (angina may occur in patients with coronary artery disease)
10-20	slight headache, exercise-induced angina, dyspnea on vigorous exertion
20-30	throbbing headache, nausea, vomiting, weakness, visual disturbance, impaired judgment
40-50	syncope, tachycardia, tachypnea
50-60	coma, convulsions, Cheyne Stokes respiration
60-70	comprised cardiorespiratory function
70-80	death

Second, CO shifts the oxyhemoglobin dissociation curve to the left, further reducing oxygen delivery. Third, CO binds to the mitochondrial oxidase system, interfering with oxygen utilization.

The symptoms of CO poisoning depend on the length of exposure, physical activity, underlying disease states, and the total COHb concentration.[3] In general, the symptoms of CO poisoning correlate with COHb levels (Table 1). Few patients have symptoms with COHb levels below 10 per cent, although patients with coronary artery disease may experience angina. With levels between 10 per cent and 20 per cent, headache, dizziness and exercise-induced angina may occur. Severe headache and dyspnea on moderate exertion appear with blood levels between 20 per cent and 30 per cent. With levels between 30 per cent and 40 per cent, severe headache, visual disturbances and impaired judgment may occur. With levels in the 40- to 50-per cent range, syncope and seizures can occur. Levels greater than 60 per cent may be fatal.

The diagnosis of CO poisoning is made by measuring CO saturation using a device called a CO-oximeter. Routine blood gases, which measure dissolved oxygen content, are usually normal and not helpful in making the diagnosis. A high index of suspicion is necessary to make the diagnosis since the symptoms are non-specific and could be confused with a flu-like illness. A detailed history may be necessary to discover sources of CO poisoning.

The tissues most seriously affected by CO poisoning are those which are most sensitive to oxygen deprivation, primarily the CNS and myocardium.[1] However, the physiologic effects of CO poisoning affect all organ systems (Table 2).

Cardiovascular Manifestations

Cardiovascular system manifestations of CO poisoning range from asymptomatic EKG abnormalities to angina, arrhythmias and myocardial infarction. Ayres and co-workers[4] studied the effects of breathing CO on myocardial function in patients with and without coronary artery disease. In these studies, measurements of coronary blood flow, coronary sinus oxygen tension and the myocardial oxygen extraction ratio were made with patient breathing CO over 30-120 seconds to increase COHb saturation to nine per cent. Patients without coronary artery disease were able to increase coronary blood flow and nearly maintain coronary sinus oxygen tension. In patients with coronary artery disease, the rapid increase in COHb did not result in a significant increase in coronary blood flow, and the coronary sinus oxygen tension decreased significantly.

These authors concluded that patients with coronary artery disease have an increased risk of toxicity due to their inability to increase coronary blood flow. Thus, concentrations of COHb limit exercise tolerance in patients with coronary artery disease.

Anderson et al.[6] studied 10 adult men with stable angina by exposing them to CO for four hours on five successive days. Average COHb levels ranged from 2.9 per cent to 4.5 per cent. On treadmill exercise, the time

TABLE 2 (from Reference 3)
Physiologic Effects of Carbon Monoxide Poisoning

System	*Acute*	*Chronic*
cardiac	anginal symptoms, ST-T wave abnormalities, artrial or ventricular arrhythmias, myocardial infarction	decreased voltage, atrial fibrillation, PVCs, BB blocks, AV block, abnormal left ventricular function, lowered fibrillatory threshold
pulmonary	pulmonary edema, perihilar infiltrates, intraalveolar edema	
visual	decreased light sensitivity, decreased dark adaption, retinal hemorrhage, hemorrhages	
auditory	central hearing loss	
neuropsychiatric	seizures, agitation headaches, coma, thermo-regulation abnormalities	decreased cognitive ability, mental retardation, psychosis, parkinsonism, incontinence
dermatologic	bullae, alopecia sweat gland-necrosis	
hematologic	disseminated intravascular coagulation	elevation of hemoglobin and hematocrit, increased erythropoietin, transient elevation of reticulocyte count
metabolic	lactic acidosis, myonecrosis, hyperglycemia, proteinuria	

to onset of angina was shortened and the duration of anginal pain was increased. Aronow et al.[7] also demonstrated the ability of CO to aggravate angina in 10 patients exposed to COHb by driving with the windows open on a Los Angeles County freeway for 90 minutes. These patients

Aronow et al. also demonstrated the ability of CO to aggravate angina in 10 patients exposed to COHb by driving with the windows open on a Los Angeles County freeway for 90 minutes.

had an average COHb concentration of 4.96 per cent and a significant decrease in exercise performance prior to the onset of angina.

Several studies have shown that cigarette smoking causes patients with angina to have a significant decrease in exercise performance prior to the onset of angina.[8,9] In addition, healthy firemen exposed to CO may develop disturbances in cardiac rhythm.

Moderate levels of CO exposure cause myocardial anatomical abnormalities in animals. Rabbits having COHb levels from 16 to 18 per cent for two weeks showed focal areas of necrosis of myofibrils and degenerative changes of the mitochondria.[10]

CO exposure may also increase the risk of developing atherosclerotic diseases. Wald et al.[11] studied 1,085 volunteers and found that the COHb level provided an index of the individual risk of developing certain atherosclerotic diseases. Individuals with a COHb level of five per cent or more were found to be 21 times more likely to have atherosclerotic disease than individuals of similar age and sex with a COHb level less than three per cent. However, some of the risk of developing atherosclerotic disease may have been due to nicotine and other constituents of cigarette smoke in addition to the effects of CO.

Smoking and CO

Aronow[12] attempted to separate the acute effects of increased COHb concentrations after smoking from the effects of nicotine by exposing patients with angina to CO until COHb levels were equivalent to those achieved after smoking three cigarettes. CO caused a negative inotropic effect by increasing left ventricular end-diastolic pressure and decreasing stroke work but did not change blood pressure or heart rate significantly. Nicotine caused an increased systolic and diastolic blood pressure and increased heart rate. This study indicates that the negative inotropic effects of smoking are due to the effects of CO.

Studies of the effects of CO exposure on myocardial irritability suggest that exposure to COHb can lead to electrocardiographic abnormalities in man and a lower threshold for ventricular arrhythmias in animals. DeBias et al.[13] have shown that in monkeys in which experimental

Studies of the effects of CO exposure on myocardial irritability suggest that exposure to COHb can lead to electrocardiographic abnormalities in man and a lower threshold for ventricular arrhythmias in animals.

myocardial infarction has been induced, exposure to CO to produce COHb concentrations of nine per cent resulted in lowering the threshold for induced ventricular fibrillation.

Studies have also confirmed that exposure to CO in concentrations found during heavy atmospheric pollution can aggravate angina and lead to myocardial infarction.[6,14] Cohen and associates[15] showed an association between atmospheric CO pollution in Los Angeles and case fatality rates for patients with acute myocardial infarction admitted to Los Angeles hospitals.

CO exposure may also contribute to myocardial infarction by increasing thrombotic tendency; it has been shown that COHb increases platelet stickiness.[16]

CO poisoning affects other organ systems in addition to the cardiovascular system. The effects of CO on cerebral function include decreased light sensitivity and dark adaptation, central hearing loss, headaches, seizures and coma. Pulmonary effects include pulmonary edema and perihilar infiltrates. Lactic acidosis, myonecrosis and DIC also can occur from CO exposure (Table 2).

Treatment

Treatment of CO poisoning depends on the severity of exposure and the clinical manifestations. CO is bound to myoglobin and hemoglobin, and elimination occurs through the lungs. A 50-per cent reduction of the COHb concentration occurs in approximately four hours while breathing room air.[1] If 100-per cent oxygen is breathed, this time is reduced to 40 minutes. With severe CO poisonings (COHb levels greater than 50 per cent) hyperbaric oxygen therapy can be used to eliminate CO even faster than breathing 100-per cent oxygen.

Summary

CO is an ubiquitous poison which affects multiple organ systems. CO compromises cardiovascular function several ways in patients with coronary artery disease. First, CO decreases the blood's oxygen-carrying capacity and causes tissue hypoxia. In addition, COHb reduces the threshold for ventricular arrhythmias and has a negative inotropic effect. CO also increases the thrombotic tendency by increasing platelet stickiness. In patients with coronary artery disease, even low levels of COHb may interfere critically with adequate oxygen delivery.

In our patient, angina and myocardial infarction occurred following moderate CO poisoning. We suspect that CO poisoning played a significant role in this patient's myocardial infarction.

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Dietary Fiber Reduces Abdominal Pain in Children

Fifty per cent fewer recurrent abdominal pain attacks were noted in children given additional dietary fiber, according to a report in the December, 1985, *American Journal of Diseases of Children*. William Feldman, M. D., and colleagues from the Children's Hospital of Eastern Ontario in Ottawa conducted the first prospective, randomized, double-blind controlled trial using fiber in the management of children with idiopathic pain.

The study involved 52 children with recurrent pain. Half of the youngsters were given fiber cookies and the others a placebo. Twice as many children given fiber had fewer pain attacks as controls, the researchers report. "It is hypothesized that the beneficial effect of added fiber is due to its effect on shortening transit time, as in irritable bowel syndrome," they said.

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President's Page

Legislative Experience

It was quite interesting to see the West Virginia Legislature get under way in January.

As I write this, my impressions are only based on one week of observing the Legislature, hardly long enough to be considered experienced.

Nevertheless, some thoughts have come through, and I will try to summarize these.

A huge flurry of proposed legislative bills are submitted in the early days. This will continue up to the last three weeks of the 60-day session. Of the approximately 1,700 proposed bills submitted to both houses, only about 10 per cent ultimately will be passed into law, most of these in the waning days of the session.

Bills are referred to standing committees by the Speaker of the House of Delegates and the President of the Senate and will not be accorded the necessary three readings on the floor of the House or Senate unless reported out of committee. Each bill must go through the same process in the other body once it has passed the one in which it originated.

If a bill manages to get out of committee and is debated, amended and finally passed on the floor, it still has a way to go.

Any differences in the two versions of the bill must be worked out by a conference committee composed of senators and delegates before going to the governor for signature. A bill may die if compromise is not reached by the conference committee.

By the time you read this, two bills will have been introduced into the House and Senate under WVSMA sponsorship—one, specifically detailing hoped-for reform measures in professional liability, and the other, a comprehensive bill calling for general tort reform.

Governor Moore has strongly endorsed tort reform in West Virginia, and we anticipate that we will actviely support the bill which he will soon send to the Legislature.

The legislators are, for the most part, sincere, hard working folks, somewhat overwhelmed by the magnitude of the job and the limitation of resources. They are tugged at from all directions by groups touting one legislative remedy or another.

We hope that tort reform will be an important legislative priority this session. A stable environment for the practice of medicine is an important factor for economic recovery in West Virginia.

David Z. Morgan, M. D., *President*
West Virginia State
Medical Association

Editorials

Advertisers

And now a short pause for a commercial. We will return in a moment . . . .

We like to keep these editorial pages free of crass commercialism. Some place needs to be pure, pristine, unsullied by materialistic concerns. You will note too that we make it a practice to avoid intermingling advertising copy with our scientific articles and our Association news. We might add that we could be paid a little more money for the ads if we would shuffle them into the other copy like some journals do.

Why then are we littering up this section by mentioning the subject of advertisers? The answer, of course, is that we can maintain the fiction of unconcern about our needs for money and our total disregard for commercialism only so far. We get money from advertisers. Money allows us to publish Association news and scientific articles, and to keep this little corner of editorial opinion pure and unsullied.

The Journal published fewer national advertising account pages by almost one-half in January 1986 than it did in January 1985. January 1985 was not a particularly good month. Advertising trade publications tell us that a number of heavy advertisers in the pharmaceutical industry have reduced their advertising budgets for 1986. An added problem for state journals such as ours is that the advertising dollar is being spread over more journals and advertisers are now frequently turning to computer identified specific prescriber groups for specific products.

We are not suggesting a need to unlimber our prescription pads. We do suggest a glance through our advertising pages and a mental note to give a civil or better reception to the drug representatives from these companies the next time they appear in your waiting room. The non-advertisers can continue to suffer through your ordinary drug representative reception.

Advertisers need us more than we need them. It is clear that were one of them to totally alienate all or most of the physicians, that one would not be long in business no matter the quality of its product. But we need them to help support our scientific and our organizational activity and our patients need them to carry on new product research and to maintain product quality assurance.

It's all a nice trade off. We need to support our advertisers and they need to support us. And we need to keep this section pure, pristine and unsullied by materialistic concerns.

Just a quick glance through our advertising pages is all you will need. Thank you. And now, back to our regular program . . . .

PPO Presents Opportunity

The formation of Preferred Medical Care Network of West Virginia, Inc. (PMCN) presents an opportunity for this state's physicians to regain control of the quality of care delivered.

Any member of WVSMA will be eligible to join this Preferred Provider Organization (PPO) formed by your state association as long as he or she pays the one-time enrollment fee, submits his/her fees for the 50 most commonly performed procedures, and agrees to submit to strong peer review.

In order for a PPO to be cost-effective and save the payor money (be that payor the employer, the insurance entity or the individual patient), it must demand cost-consciousness and efficicency from the provider of the health service. A doctor who finds it necessary to keep a patient hospitalized for extra days or to run an extra test or two to confirm a diagnosis more accurately will not be penalized for such attention to quality care. A recurrent pattern of keeping every, or a majority, of patients beyond recognized lengths of stay or administering a higher than normal number of tests given by other physicians for the same diagnosis will quickly draw the attention of the PPO's review process. Offending physicians will be notified of their aberrance from recognized standards of care. If the behavior does not change wihtin a set period of time, the physicians will be dropped from participation in the PPO.

It must be noted that the standards of quality care will be developed by physicians in the respective specialties and not by an outside practitioner or third-party payor. Thus it will be physicians determining whether or not their colleague is practicing quality, cost-conscious medical care.

It is the hope of WVSMA leadership that sizeable numbers of physicians will sign on with the PPO so that it can begin to wield its influence on a broad base early on. Even though the number of PPO patients in a given practice may be small at the beginning, it would seem logical to conclude

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

that as doctors seek to give conscientious, quality, cost-effective care to those PPO patients, they will likewise extend similar practices to all patients.

WVSMA and PMCN board members are not impugning the integrity of physicians en masse. We believe that the vast majority of physicians are honest, competent, hardworking practitioners. Unfortunately, the few who do hospitalize unnecessarily, who overcharge or in some fashion take advantage of innocent patients create hardship for all physicians. It is hoped the influence of an active, properly motivated and run PPO will go far in helping competent physicians "police their ranks" by culling out the aberrant practitioner. And it will happen relatively soon if substantial numbers of patients are part of the PPO and realize they have financial incentive to utilize the "preferred" providers who have agreed to strong peer review as opposed to going just anywhere to a physician who may not be quality and cost conscious.

Preferred Medical Care Network of West Virginia, Inc., a wholly-owned, non-profit subsidiary of the West Virginia State Medical Association, is dedicated to running a "squeaky clean" operation which will benefit the public and patients of West Virginia as much as it may offer benefit to physicians who elect to become members of the PPO.

WVSMA urges each of its members to give careful consideration to becoming participants in PMCN. This PPO offers the promise of restoring both sensibility and reason to the delivery of medical care to the hands of concerned, caring and dedicated physicians. Physicians who join will be saying they are willing and ready to deliver quality, cost-conscious medical care and will submit themselves to stringent peer review in exchange for a fair rate of reimbursement for their services.

Our Readers Speak

Bagpipe-Playing Experiment Pleases Most Mental Patients

In the June, 1985, issue of the West Virginia Medical Journal (Vol. 81, No. 6, p.128) the salutary effect of the playing of the Highland Bagpipe on a young man refusing nourishment was reported. His subsequent diagnosis was psychotic depression. We would like to add a brief footnote on the effect of this instrument on a ward of 26 of our behaviorly stable, mentally retarded/developmentally disabled patients who were about their usual daily activities on December 28, 1985.

L.L. was the only patient who evidenced annoyance at the sound of the bagpipe; he did so by covering his ears twice. He did not become upset or agitated, and had a history of dislike of noise. The universal response of the remaining 25 patients was one of intense curiosity. Many exhibited expressions of pleasure and crowded around the performer to look, and touch the instrument. The more verbal patients expressed liking for the music.

The ability of the Highland Bagpipe to compel attention may have an advantage in arousing the perceptions of the mentally retarded/developmentally disabled. The further efficacy of this method remains to be studied.

John H. McWhorter, M. D.
Chief of Medicine
Weston State Hospital
Weston, WV 26452

Jennifer I. Singleton, R.N.
Staff Nurse
Weston Hospital

"Medicine has not faced such a challenge [AIDS] in decades, perhaps centuries."

James H. Sammons, M. D.
Executive Vice President
American Medical Association

General News

Michigan Surgeon 1986 Convention Guest

AMA President To Address House

John J. Coury, Jr., M. D.

Dr. John J. Coury, Jr., who will be installed as President of the American Medical Association in June, will speak during the WVSMA's Annual Meeting in August.

Doctor Coury, of Port Huron, Michigan, a general and pediatric surgeon, will address the first session of the House of Delegates Wednesday afternoon, August 13.

The August 12-17 convention will be held at the Greenbrier in White Sulphur Springs.

General scientific sessions will be held Thursday morning, August 14, and Friday and Saturday mornings on a variety of subjects including solitary thyroid nodule, headache, geriatric hypertension, polypharmacy and the elderly, blood and blood products, non-diabetic endocrine emergencies, facts and fads in nutrition, strict diabetic control, and clinical clues in arthritis.

Doctor Coury was elected AMA President-Elect at its Annual Meeting in June, 1985.

Since his election to the Board of Trustees in 1976, Doctor Coury has served as its Chairman, 1983-85, and as its Vice Chairman, 1981-83. Prior to that he was a Delegate to the AMA House of Delegates, a member of the AMA councils on Legislation and Long Range Planning and Development, and Past President of the Michigan State Medical Society.

Born in Wheeling, West Virginia, Doctor Coury graduated from Washington-Jefferson College in Washington, Pennsylvania, and earned his M.D. degree at Case Western University School of Medicine. His internship and residency training were received at Harper Hospital and Children's Hospital in Detroit. He is a Diplomate of the American Board of Surgery and a Fellow of the American College of Surgeons and the Detroit Academy of Surgery.

Doctor Coury is a member of the surgical staffs of Mercy and Port Huron Hospitals.

In 1985, Doctor Coury received an honorary Doctor of Science degree from Washington-Jefferson College. His community activities include membership in the Port Huron Chamber of Commerce and Trustee, Port Huron District Foundation. He also is a member of the Port Huron Industrial Development Commission, and a former Director of the United Way and the Catholic Social Services of St. Clair County.

Doctor Coury and his wife, Doris, have three children.

Convention Schedule

Convention activities will get under way with a 2 P. M. meeting of the WVSMA Executive Committee on Tuesday, August 12; the usual pre-convention meeting of the Council at 9:30 A. M. on Wednesday, and the opening session of the House at 2:45 P. M. on Wednesday.

The first general session will be held immediately following 9 A. M. opening exercises on Thursday.

General Scientific sessions will offer hour-for-hour Category 1 credit.

Dr. Charles E. Turner of Huntington will be inaugurated as President to succeed Dr. David Z. Morgan of Morgantown during the second and final House session Saturday afternoon.

The Annual Meeting of the Auxiliary to the State Medical Association, with Jeanny (Mrs. M. V.) Kalaycioglu of Shinnston in charge as the Auxiliary's President, again will run concurrently with the Association's convention.

Program Committee

Serving on the Annual Meeting Program Commitee are Dr. John W. Traubert, Morgantown, Chairman; Doctor Turner; and Drs. Marshall J. Carper and Richard E. Kleinmann, both of Charleston; Jose I. Ricard, Huntington; John A. Rizzo, Fairmont, and William N. Walker, Jr., Clarksburg.

More specific information relative to general session topics and speakers will be provided in upcoming issues of *The Journal.*

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Following Page xxiv

Gary E. Ruoff, M. D.

Robert S. Eliot, M. D.

State AAFP Announces Program For April 18-20 Assembly

Some 14 doctors will be speakers for the 34th annual scientific assembly of the West Virginia Chapter, American Academy of Family Physicians, April 18-20, in Charleston.

To be located at the Holiday Inn Charleston House, the meeting will open Friday, April 18, with scientific sessions scheduled that morning, Friday afternoon, Saturday morning, Saturday afternoon, and Sunday morning.

The assembly will end at 12:30 P. M. on Sunday.

A wide variety of scientific and other subjects will be discussed, including: side effects with antibiotics; cost-effective use of cephalosporins—DRGs; neonatal resuscitation; rheumatoid arthritis; hormonal replacement for menopausal women, somataform disorders; stress and the heart; cardiac rehabilitation; thrombotic disease; lipids; essential hypertension; hospital privileges/family practice departments; and medical malpractice (mock trial presentation).

Among the out-of-state speakers will be Drs. Gary E. Ruoff, President and Director, Clinical Research, Westside Family Medical Center, Kalamazoo, Michigan, whose topic will be "Rheumatoid Arthritis Update;" Robert S. Eliot, Director, National Center of Preventative and Stress Medicine, Saint Luke's Heart Lung Center, Phoenix, Arizona, and author of the book, *Is It Worth Dying For?*, who will discuss various aspects of stress and the heart during the Saturday morning session; and Mark C. Houston, Assistant Professor of Medicine; Co-Director, Medical Intensive Care Unit, and Medical Director, Cooperative Care Center, Vanderbilt University Medical Center, "New Insights and Approaches to the Treatment of Essential Hypertension: Therapy Based on Evaluation of Hemodynamic Profiles, Coronary Heart Disease Risk Analysis and Subsets of Hypertension."

Mark C. Houston, M. D.

The schedule of activities will include exhibit booth visitations, a luncheon meeting of the AAFP House of Delegates Friday, cruise up the Kanawha River on the P. A. Denny Sternwheeler Friday evening, and banquet Saturday evening.

The program is accredited for 18 AAFP Prescribed Hours, Category 1, and also is approved for 18 hours of AMA Category 1 credit.

Dr. D. Dean Patton of Princeton is Program Chairman.

For registration or additional information, call (304) 776-1178.

Additional information pertaining to the program and speakers is scheduled to appear in the March issue of *The Journal.*

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 4106, Charleston 25364. We'll be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

The Premature Labor Handbook, by Patricia Anne Robertson, M. D.; and Peggy Henning Berlin, Ph.D. $16.95. Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10167. 1986.

AIDS in the Mind of America, by Dennis Altman. $16.95. Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10167. 1986.

Cardiac Arrest (A True Account of Stolen Lives), by Sarah Spinks. $17.95. Doubleday & Company, Inc., 245 Park Avenue, New York 10167. 1986.

Oncology Clinical Update Program March 7-8, Charleston

Steven J. Jubelirer, M. D.

Thomas H. Covey, M. D.

"Oncology Update '86—A Clinical Perspective," a program for all health professionals who work with cancer patients, will be held March 7-8 in Charleston at the West Virginia University School of Medicine.

Sponsored jointly by the Charleston Area Medical Center's new Cancer Care Center of Southern West Virginia and WVU School of Medicine, Morgantown, the program celebrates the opening of the Center, located at CAMC Memorial Division.

It is the second in a series of annual programs concerning cancer in the Appalachian plateau, and will include a review of cancer problems in the state, featuring lectures, concurrent workshops and case presentations.

Exhibit sessions and tours of the Cancer Care Center are planned at various times during the program.

The meeting will begin with registration at noon on Friday, March 7, and continue through Saturday until 4:30 P. M.

Guest Faculty

Guest faculty members will be Drs. George T. Bryan, Professor of Human Oncology and Associate Director, Laboratory Program, Wisconsin Clinical Cancer Center, University of Wisconsin; John Laszlo, Professor of Medicine, Duke University; David S. Ettinger, Associate Professor of Oncology/Medicine, Johns Hopkins Oncology Center, and Catherine M. Hogan, R.N., M.N., Oncology Clinical Nurse Specialist/Oncology Program Director, Western Pennsylvania Hospital, Pittsburgh.

Doctor Terry will speak on "Carcinogenesis" during the opening panel discussion Friday, "Etiology of Cancer;" Doctor Laszlo, Saturday morning, "Control of Nausea and Vomiting;" Doctor Ettinger, Saturday morning (one of two speakers on "New Therapies"), "Immunologic Therapy;" and Hogan, Saturday morning, "Pain Management in the Cancer Patient;" and Saturday afternoon workshops, "Administration of Chemotherapy Drugs" and "The Cancer Patient: Sexual Concerns."

Other Subjects

Other subjects to be discussed will be water pollution in West Virginia, nutrition and cancer etiology, breast screening, cervical screening, colon screening, oral screening, new diagnostic approaches (tumor markers and radiological techniques), new therapies (radiotherapy techniques);

Workshops: dying and death, with case presentations on Hodgkin's disease, cancer of the colon, and head and neck cancer; leukemia, prostate cancer and ovarian cancer (case presentations); and melanoma, breast cancer and lung cancer (case presentations).

Also serving on the faculty, from Morgantown and Charleston, will be 13 physicians, one Ph.D., one dentist, and two registered nurses.

Program Chairmen are Drs. Steven J. Jubelirer, Medical Director of the Cancer Care Center, and Clinical Associate Professor of Medicine, WVU Charleston Division; and Thomas H. Covey, WVU Associate Professor of Surgery, Morgantown.

The program is approved for 9.5 hours of American Medical Association Category 1 credit; is acceptable for 9.5 Prescribed hours by the American Academy of Family Physicians, and is approved for .95 continuing education units by WVU.

For registration and other information, contact the CAMC Department of Continuing Education at (304) 348-9580.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education, and J. Zeb Wright, Ph.D., Coordinator, Continuing Education, Department of Community Medicine, WVU Charleston Division. The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.*)

The program is tentative and subject to change. It should be noted

that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained from: Office of Continuing Medical Education, MU School of Medicine, Huntington 25701; Division of Continuing Education, WVU Medical Center, 3110 MacCorkle Avenue, S. E., Charleston 25304; Office of Continuing Medical Education, WVU Medical Center, Morgantown 26506; or Office of Continuing Medical Education, Wheeling Division, WVU School of Medicine, Ohio Valley Medical Center, 2000 Eoff Street, Wheeling 26003.

West Virginia University

Feb. 9-12, Snowshoe Mountain Resort, Fourth Annual Snowshoe Vascular Surgery Conference

Feb. 22-23, Charleston, Advance Cardiac Provider Course

March 7-8, Charleston, Oncology Update 1986

March 21, Charleston, Annual Newborn Day

April 11-12, Charleston, Cardiac Rehabilitation

May 14, 4th Annual West Virginia Conference on Infectious Diseases

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — Feb. (vacation)

March 20, "Treatment Options for Breast Cancer," Leland J. Foshag, M. D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A. M. — Feb. 12, "Pediatric Allergies," Chandra Kumar, M. D.

March 12, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment" (speaker to be announced)

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — Feb. (vacation)

March 5, "Update Cancer Treatment," Anthony J. Murgo, M. D.

April 2, "Use of Gastroscope," William O. McMillan, Jr., M. D.

Madison, Boone Co. Health Dept. — Conference Room, 2nd Tuesday, 7-9 P. M. — Feb. (vacation)

March 11, "Management of Pain in the Cancer Patient," Richard A. DeVaul, M. D.

April 18, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment," Henry Winkler, M. D.

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — Feb. (vacation)

March 25, "Alzheimer's Disease," Albert Heck, M. D.

Summersville, Summersville Memorial Hospital, 6:30-8:30 P. M. — Feb. (vacation)

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — Feb. (vacation)

March 19, "Hormonal Treatment of Metastatic Cancer," Thomas F. Hogan, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — Feb. (vacation)

March 26, "Cancer Screening at the Primary Care Level," Richard G. Emanuelson, M. D.

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — Feb. (vacation)

March 6, "Cancer Screening at the Primary Care Level," Richard A. Vaughan, M. D.

April 3, "Update: Cancer Treatment," Alvin L. Watne, M. D.

1986 AMA Leadership Conference In February

WVSMA will be represented at the 1986 National Leadership Conference sponsored by the AMA February 20-22 at the Chicago Marriott Hotel. Each year, the meeting attracts about 1,000 leaders of state medical associations and national medical specialty societies seeking to advance the cause of organized medicine in health care policy decision-making. Roger B. Smith, Chairman of General Motors, will be the speaker at the opening general session.

Medical Meetings

Feb. 2-5—Am. Hospital Assoc., Washington, DC.

Feb. 2-7—Am. College of Medical Imaging, Lake Tahoe, NV.

Feb. 20-25—Am. Academy of Orthopaedic Surgeons, New Orleans.

Feb. 21-23—Va. Chapter, Am. Academy of Pediatrics; Va. Pediatric Society, Williamsburg.

March 5-9—Am. Medical Student Assoc., Washington, DC.

March 9-13—Am. College of Cardiology, Atlanta.

March 13-16—Physicians for Social Responsibility, Philadelphia.

March 15-18—Southeastern Surgical Congress, Louisville, KY.

March 22-26—Am. Academy of Allergy & Immunology, New Orleans.

April 3-6—Am. College of Preventive Medicine, Atlanta.

April 10-13—Am. College of Physicians, San Francisco.

April 13-17—Am. Assoc. of Neurological Surgeons, Denver.

April 14-18—Am. Roentgen Ray Society, Washington, DC.

April 18-20—WV Chapter, AAFP.

April 27-May 3—Am. Academy of Neurology, New Orleans.

May 5-8—Am. College of Obstetricians & Gynecologists, New Orleans.

May 7-9—Am. Society for Artificial Internal Organs, Anaheim, CA.

May 10-16—Am. Psychiatric Assoc., Washington, DC.

May 11-14—Am. Thoracic Society, Kansas City, MO.

May 11-16—Am. Society of Colon & Rectal Surgeons, Houston.

May 17-23—Am. Gastoenterological Assoc., San Francisco.

May 29-30—Am. Society of Transplant Surgeons, Chicago.

May 29-June 1—VA Society of Ophthalmology, Norfolk.

Aug. 12-17—119th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

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The controlled-release delivery system of INDERIDE LA provides 24-hour beta blockade and the broad cardiovascular benefits of INDERAL with a single daily dose. Compliance is enhanced because once-daily administration fits easily into patients' daily routines.

Plus standard-release hydrochlorothiazide, the thiazide of choice for comfortable morning diuresis

Hydrochlorothiazide is the world's most widely prescribed antihypertensive diuretic. When taken in the morning, INDERIDE LA provides comfortable morning diuresis. Each dosage strength of INDERIDE LA contains:

—one of the three most widely prescribed dosage strengths of INDERAL® LA—80 mg, 120 mg, or 160 mg and

—an established, effective daily dose of standard-release hydrochlorothiazide—50 mg

New once-daily INDERIDE® LA

Each capsule contains propranolol HCl (INDERAL® LA), 80 mg, 120 mg, or 160 mg, and hydrochlorothiazide, 50 mg

Convenience without compromise

80/50 120/50 160/50*

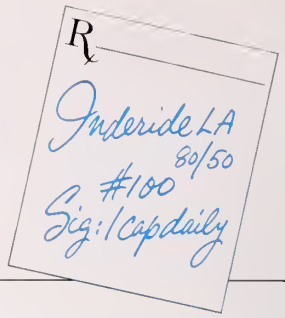
*The appearance of INDERIDE® LA Capsules is a registered trademark of Ayerst Laboratories.

Please see following page for brief summary of prescribing information.

Once-daily
INDERIDE® LA

Convenience without compromise
One capsule—Once daily

80/50 120/50 160/50*



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BRIEF SUMMARY *(FOR FULL PRESCRIBING INFORMATION, SEE PACKAGE CIRCULAR.)*

INDERIDE® LA Brand of **PROPRANOLOL HYDROCHLORIDE (INDERAL® LA) and HYDROCHLOROTHIAZIDE (Long Acting Capsules)**

No. 455—Each INDERIDE® LA 80/50 Capsule contains
Propranolol hydrochloride (INDERAL® LA) 80 mg
Hydrochlorothiazide 50 mg

No. 457—Each INDERIDE® LA 120/50 Capsule contains
Propranolol hydrochloride (INDERAL® LA) 120 mg
Hydrochlorothiazide 50 mg

No. 459—Each INDERIDE® LA 160/50 Capsule contains
Propranolol hydrochloride (INDERAL® LA) 160 mg
Hydrochlorothiazide 50 mg

INDERIDE LA is indicated in the management of hypertension.

This fixed-combination drug is not indicated for initial therapy of hypertension. If the fixed combination represents the dose titrated to the individual patient's needs, therapy with the fixed combination may be more convenient than with the separate components.

CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL®):
Propranolol is contraindicated in: 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide:
Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL®):
CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized, and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

> IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction, following abrupt discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned, the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patients should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide:
Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL®):
GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS. Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

Hydrochlorothiazide:
GENERAL. Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS. Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY. Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS. Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL®):
Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:
Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

Central Nervous System: Dizziness, vertigo, paresthesias, headache, xanthopsia.

Hematologic: Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis), fever, respiratory distress, including pneumonitis, anaphylactic reactions.

Other: Hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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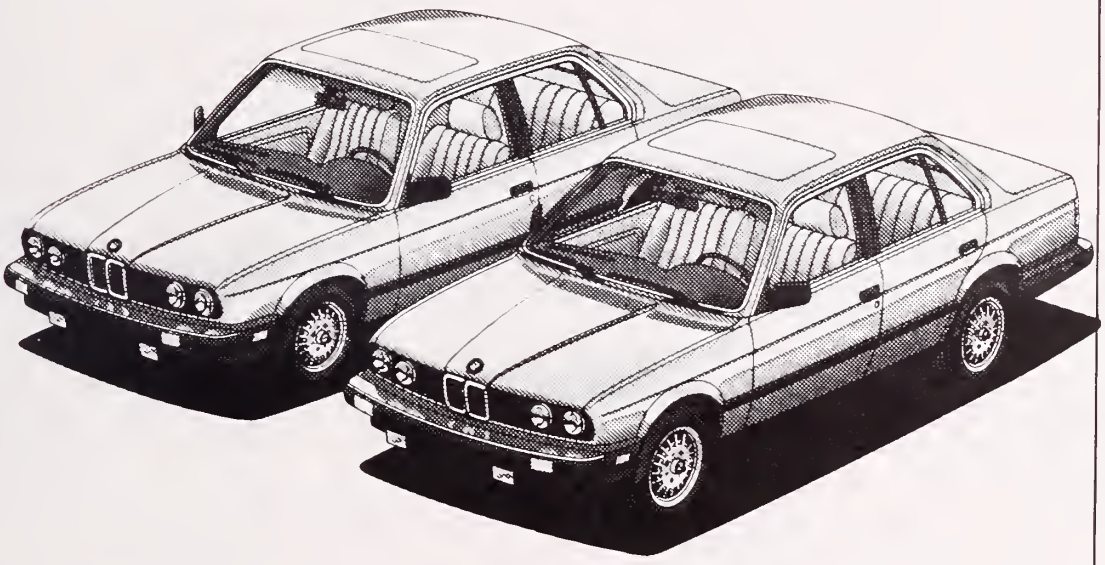

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WVU Medical Center News

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Improving Ability To Treat Elderly Is Goal

WVU is one of four academic health centers that will work with the University of Kentucky to establish a regional program aimed at improving the ability of health professionals to care for the aging and elderly.

Kentucky's College of Allied Health Professions and its Center of Gerontology have received a three-year, $783,000 award from the U.S. Health Resources and Services Administration to fund the Ohio Valley/Appalachia Regional Geriatric Education Center.

Other participants are WVU, East Carolina University and the universities of Louisville and Cincinnati.

Lucille D. Nahemow, Director of the WVU Gerontology Center and one of WVU's two contact persons for the project, said it is "oriented toward health education in the broadest sense of the word."

"Its purpose is to improve education of health professionals in matters concerned with care of elderly persons and to involve them more deeply in this area," she said.

WVU's other liaison person is Timothy R. Covington, Professor of Pharmacy and co-author of *Current Geriatric Therapy*, the first comprehensive medical book on drug therapy management for older persons. He has worked with the WVU Gerontology Center since it was established in 1981.

State Natives Start Eye Lectureship

B. Thomas Hutchinson, M. D., West Virginia-born Director of the new National Eye Care Project, is establishing a visiting lectureship in ophthalmology at WVU in honor of his parents.

Doctor Hutchinson and his wife, June, both Braxton County natives, have pledged an endowment of $25,000 to support the lectureship in honor of Mrs. Helen Buseman Hutchinson, now of Morgantown, and the late Dr. Bernard M. Hutchinson.

New Effort To Reduce State Pre-Term Births

The fact that hospital costs for premature babies can run 10 to 60 times higher than for full-term infants has sparked a new effort to reduce pre-term births in West Virginia.

A study by the Department of Community Medicine showed an average cost of more than $60,000 for treatment of infants born weighing less than 1,000 grams or two pounds, three ounces. Hospital stays can be weeks or months in such cases.

Costs dropped to an average of $26,000 at 1,500 grams; $17,000 at 2,000 grams; and $11,000 between 2,000 and 2,500 grams. Hospital costs for normal, full-term infants weighing above 2,500 grams or five and one half pounds average only about $1,000.

"We're talking about a lot of money and we're talking about a lot of heartache, distress and potential lifetime disability," said Dr. John Pearson, Chair of Community Medicine.

The department is pushing a three-part program to reduce the number of pre-term births, working with the State Health Department and its Division of Maternal and Child Health.

The program involves identifying women who are at risk of pre-term delivery, giving them extra care and teaching them to recognize signs of early delivery, and intervening with treatment and medication if necessary to delay premature birth.

Racquetball Eye Injuries Can Cause Trouble Later

Racquetball and squash can result in eye injuries that show up in complications years after the original accident, which can be more serious than the first injury.

"I see these patients after the injury and some do well," said Matthew E. Farber, M. D., a retinal specialist in WVU School of Medicine. "But we know that a history of trauma may be associated with early cataracts, and it isn't unusual for patients who have had bleeding in the eye following trauma to develop glaucoma."

Doctor Farber said an estimated 40 million Americans play racquet sports, "and one expert estimated that 70,000 eye injuries occur each year from such sports. . ."

Squash or racquet balls can travel at speeds up to 140 miles an hour and may deform and pass through open eye guards at speeds as low as 50 miles an hour, he said.

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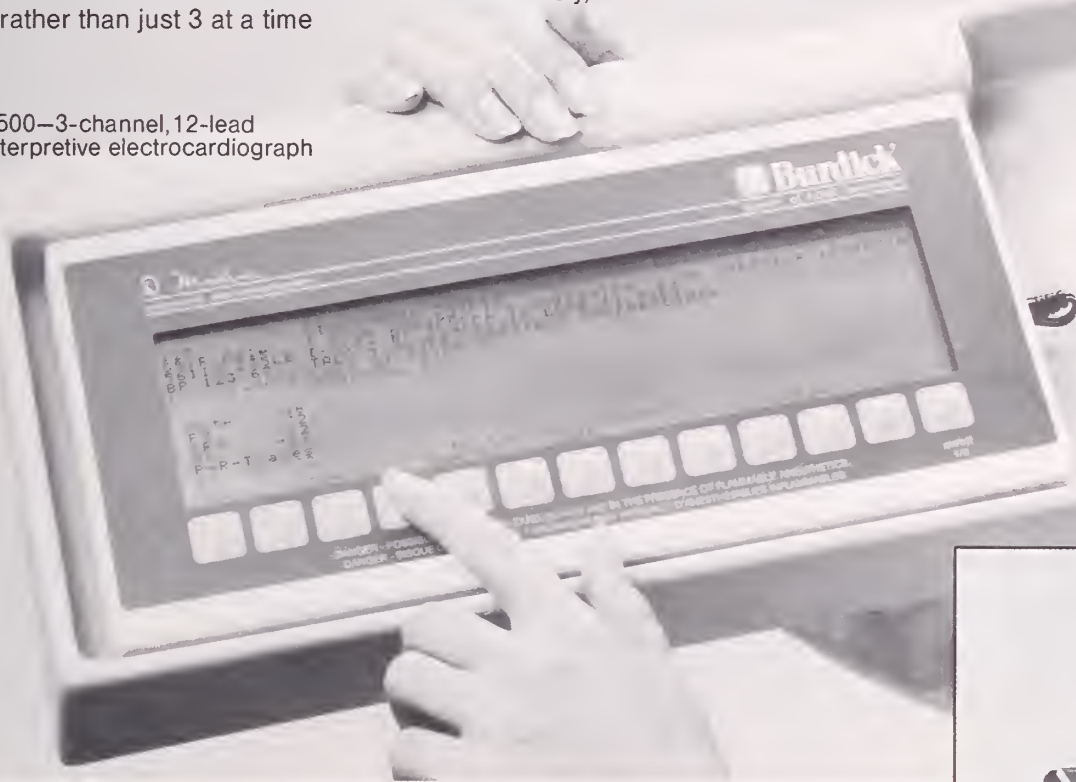

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MU School Of Medicine News

Compiled from material furnished by the Office of University Relations, Marshall University.

Funds Given To Assist MU Medical Students

The widow of Huntington physician Charles O. Reynolds has established a $100,000 trust fund in his name to assist MU School of Medicine students, Dean Lester R. Bryant, M. D., announced.

The school also has received two unrestricted gifts of $10,000 each from the estate of Pauline Thomas to honor her late husband, Carl Hensley, and Robert Walton Thomas, the deceased son of her second husband. Doctor Bryant said Mrs. Thomas' gifts will allow annual awards to outstanding graduating seniors.

The Dr. and Mrs. Charles O. Reynolds Medical Scholarship Fund was arranged by Mrs. Reynolds, now a resident of St. Petersburg, Florida, in memory of Doctor Reynolds, who practiced in Huntington for 50 years.

Annual proceeds from the endowed fund will be used to assist one or two first-year medical students, based on need.

Four Annual Lectures Integrated Into CME

Four annual lectureships or visiting professorships created in recent years by donations to the School of Medicine have recently been organized into the Continuing Medical Education program to be distributed throughout the academic year. The four are:

- The Anagene Bartram Heiner Lectureship, dedicated to sponsoring a national or international authority on diseases of women;
- The Thelma V. Owen Memorial Fund, to allow sponsorship of a visiting professor in the area of neuropsychiatry;
- The Albert Esposito Lectureship, to allow an annual program by a distinguished ophthalmologist or other medical specialist, and
- The Rowland Burns Medical Education Fund, which was primarily developed by the Huntington Internal Medicine Group to provide an annual critical care conference.

Notices of these special events will be sent to West Virginia physicians, according to Dr. Ernest Chick, Director of Continuing Medical Education. Any interested physicians who have not been receiving notices of Marshall CME events can be added to the mailing list by calling Doctor Chick at 526-0515.

Gary O. Rankin Named Pharmacology Chairman

Gary O. Rankin, Ph.D., has been named Chairman of the Department of Pharmacology, Dean Bryant announced.

The appointment of Doctor Rankin concludes a one-year national search.

"Doctor Rankin has proved to be an exceptional teacher and researcher, and he combines these qualities with strong leadership abilities that make him ideal for the position," Doctor Bryant said. "He's the kind of faculty member we would be fighting to get if he were at another institution."

In his seven years at Marshall, Doctor Rankin has been honored for both his reseach and his teaching — most recently as the first faculty member chosen to represent Marshall in its "Meet-the-Scholar Program."

He received his undergraduate degree from the University of Arkansas at Little Rock and his Ph.D. in medicinal chemistry from the University of Mississippi. He did postdoctoral research at the Medical College of Ohio, where he also served as a teaching associate.

His professional memberships include the Society of Toxicology, the Society for Experimental Biology and Medicine, and the American Society for Pharmacology and Experimental Therapeutics.

He is a member of the Board of Directors of the West Virginia Affiliate of the American Heart Association, and has served as Chairman of its Research Public Information Committee and as a member of its Reseach Grant Peer Review Committee. He also serves on numerous School of Medicine, Veterans Administration and community committees.

Two In Pharmacology Receive Grants

Two Pharmacology Department faculty members recently have received grant funding.

Dr. Carl A. Gruetter, Associate Professor, will receive $55,921 from the National Heart, Lung and Blood Institute to study "The Role of Endothelium in Pulmonary Vasoreactivity."

Dr. Darryle D. Schoepp, Assistant Professor, will receive a second year of research starter grant funding from the Pharmaceutical Manufacturer's Association Foundation. He will receive $7,750 to study "The Role of Phosophinositide Metabolism in the Developmental Expression of Rat Aortic Angiotensin II and Tachyphylaxis."

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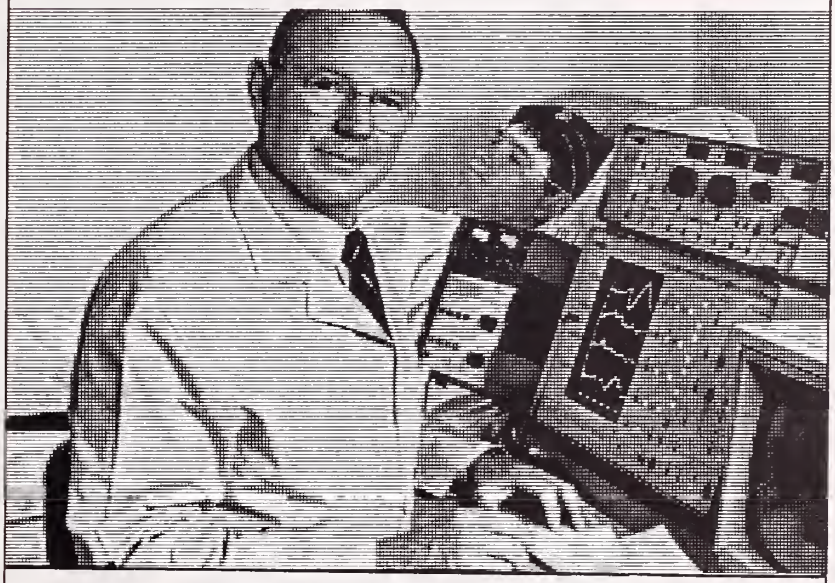

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Hancock Deaths Reported To Journal

Word recently was received by *The Journal* of the death of two Hancock County physicians in 1984.

Dr. Joseph E. Hall of Newell died on February 19, 1984; Dr. John M. Brand, Chester, on February 22, 1984.

Doctor Hall, 74, died in a Wheeling hospital.

A general practitioner, he was graduated from West Virginia University, and received his M. D. degree in 1932 from the University of Maryland. He interned at Ohio Valley General Hospital in Wheeling.

Doctor Hall was an honorary member of the Hancock County Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include a son, Joseph E. Hall II of San Diego, California; a daughter, Mrs. Jean Ann Jones of Charlotte, North Carolina, and two sisters, Mrs. Virginia Rigby of Tampa, Florida, and Mrs. Albert Graham of Newell.

Doctor Brand, a family physician, died in a Richmond, Virginia, hospital. He was 74.

He was a retired physician and a former President of the Hancock County Medical Society.

A native of Morgantown, Doctor Brand was graduated from West Virginia University, and received his M. D. degree from Rush Medical School.

A veteran of World War II, he was an honorary member of the Hancock County Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include the wife, Mrs. Louida Brand; a son, John S. Brand II of Schwenkeville, Pennsylvania; two daughters, Dr. Mary Jane Brand and Mrs. Lynn Dowdy, both of Richmond, and a brother, Jay S. Brand of Masontown, Pennsylvania.

The Journal regrets that the obituaries were not received at the time of death.

Obituaries

HAROLD B. LUSCOMBE, M. D.

Word has been received by *The Journal* of the death of Dr. Harold B. Luscombe of Westport, Connecticut, formerly of Beckley, last November 5 in a Fairfield, Connecticut, hospital. He was 80.

A veteran of World War II, Doctor Luscombe spent 27 years in service in the U. S. Army Medical Corps. He served in France as a hospital commander after the D-Day invasion. His service included Chief of Physical Medicine at William Beaumont General Hospital, El Paso, Texas; Fitzsimons Army Hospital, Denver, Colorado, and Walter Reed Army Medical Center, Washington, DC.

After retiring in 1956, Doctor Luscombe established the Department of Physical Medicine and Rehabilitation at the Beckley Miners Memorial Hospital in 1956.

Born in Newark, Ohio, he was graduated from the University of Illinois, and received his M. D. degree in 1929 from the University of Nebraska. He interned at Letterman General Hospital in San Francisco and served his residency in physical medicine and rehabilitation at Columbia University.

Doctor Luscombe was a member of the Southern Medical Association, American Congress of Rehabilitation Medicine and American Academy of Physical Medicine and Rehabilitation, and an honorary member of the Raleigh County Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include a son, John P. Luscombe of Westport; a daughter, Ann Harding, Bloomfield Hills, Michigan, and a brother Edgar A. Luscombe, Leesburg, Florida.

Presenile Dementia

A report from Israel reveals an average annual incidence rate for presenile dementia of the Alzheimer type of 2.4 per 100,000 people between the ages of 40 and 60, it was revealed in the January *Archives of Neurology*.

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County Societies

FAYETTE

The Fayette County Medical Society held a joint meeting with its Auxiliary on December 6 at the Oak Hill Holiday Inn.

New officers for 1986 were elected.

The Society approved a donation of $500 for the State Medical Association flood relief fund.

A Christmas dinner and dance were enjoyed following the meeting. —Saghir R. Mir, M. D., Secretary.

McDOWELL

The annual Christmas party of the McDowell County Medical Society was held on December 14 in Welch at Raymond's Restaurant.

Thirty-four members and guests were present.

New officers were elected.—John S. Cook, M. D., Secretary.

WESTERN

The Western Medical Society met on December 14 in the auditorium of the National Guard Armory of Roane County.

It was agreed that members would make donations toward flood relief on a voluntary basis.—Ali H. Morad, M. D., Secretary.

"Start a habit for life!"

Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8½ by 11 in.) white paper. Wide margins at least 1¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 4106, Charleston, W. Va. 25364.

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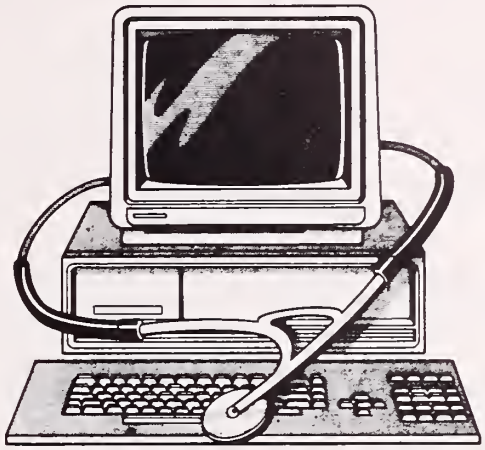

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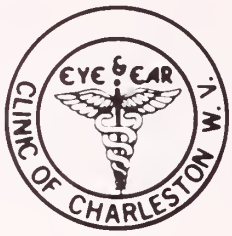

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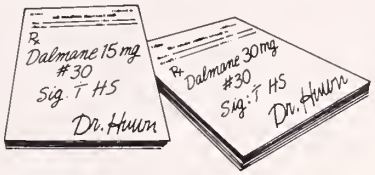

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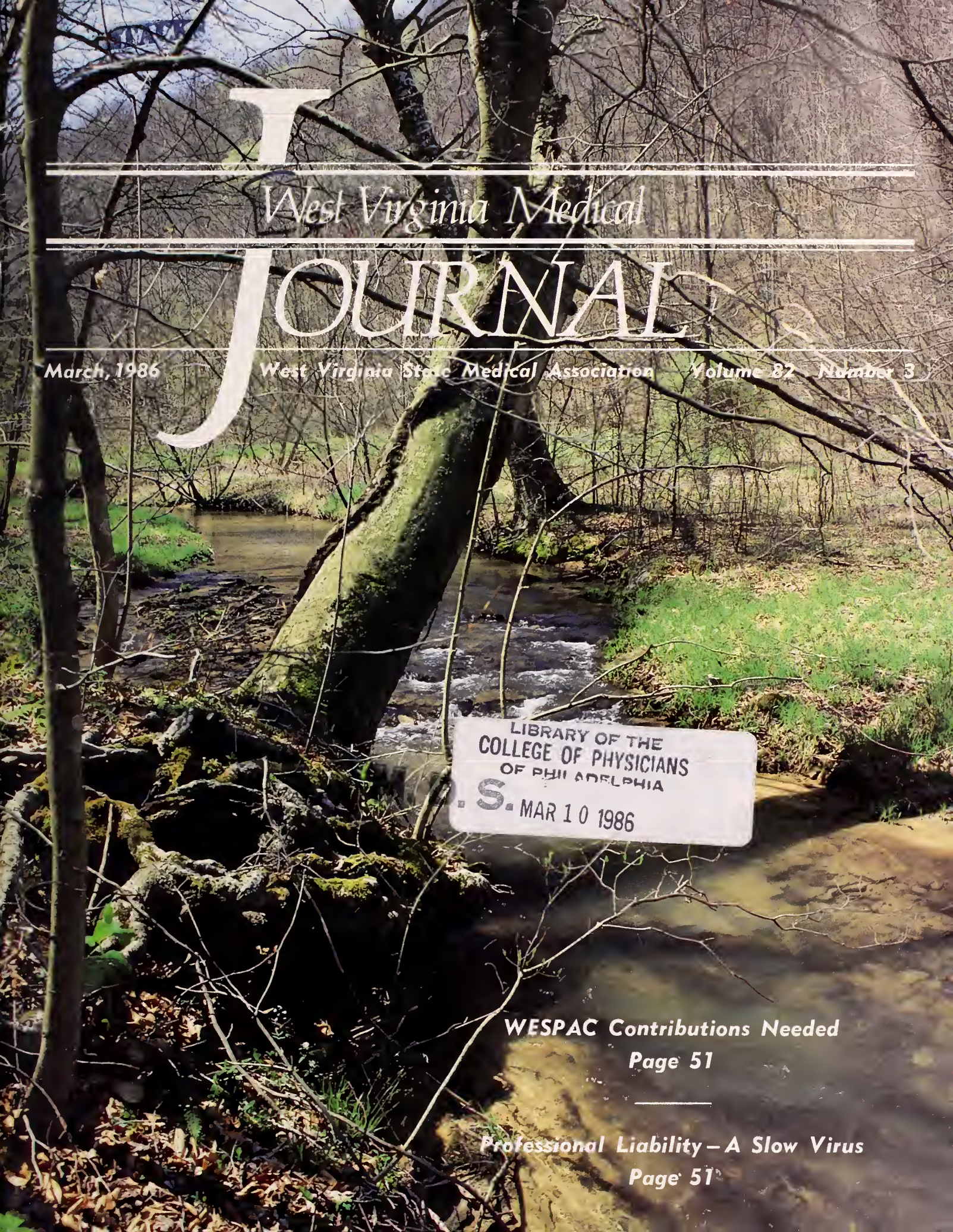

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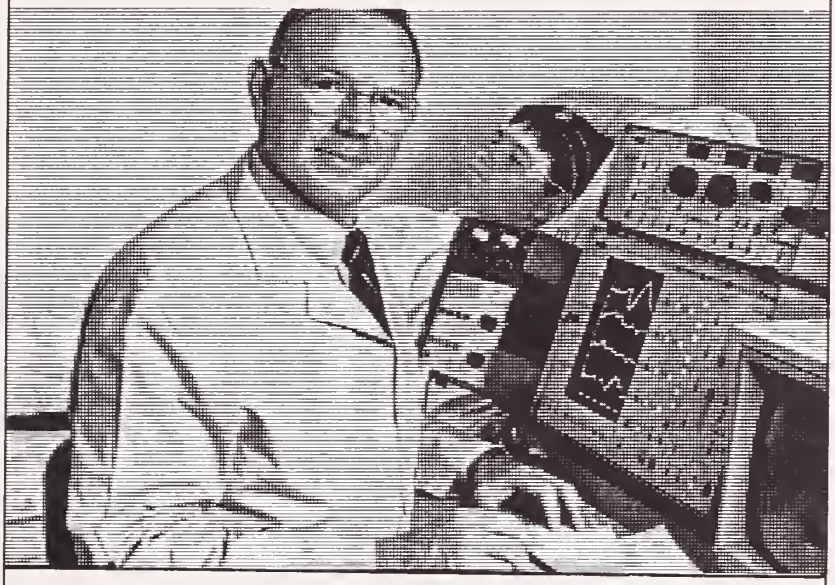

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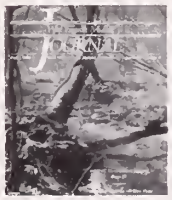

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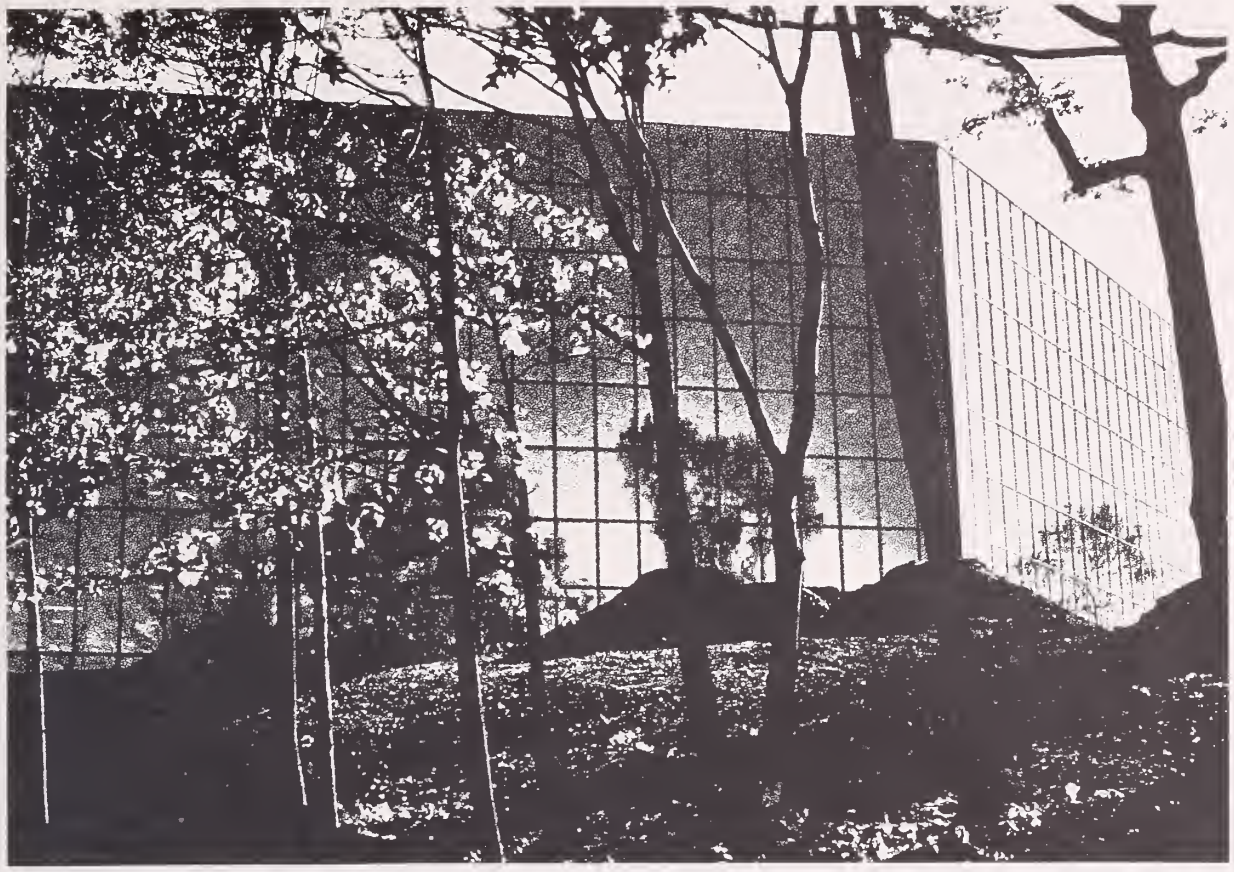

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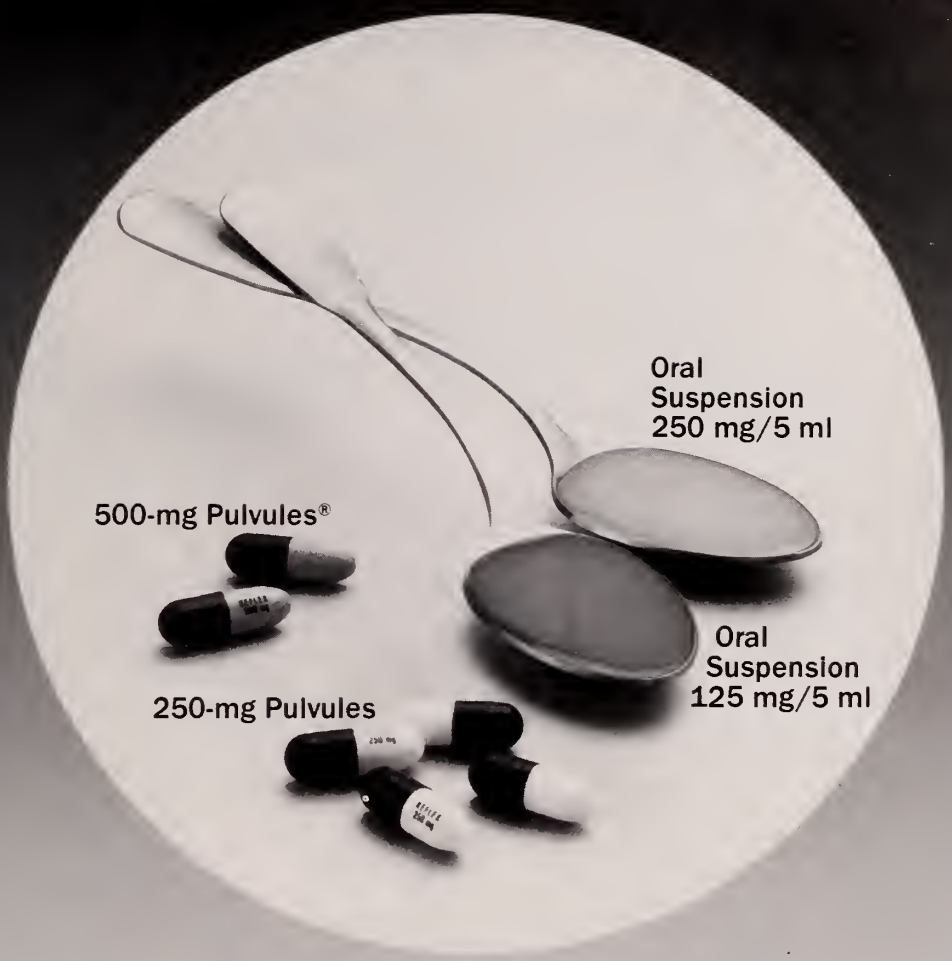

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Improved Quality of Life

The Use Of Right Atrial Catheters In Pediatric Cancer Patients

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More than 50 per cent of all pediatric cancer patients are now curable through coordinated, aggressive multimodal care. Twenty-one indwelling right atrial (RA) silastic catheters were placed in 16 pediatric oncology patients, two months to 14 years of age, to avoid recurrent, painful venous access problems. Mean catheter duration was 148 days (range one-368 days). Our rate of infection was low (19 per cent of patients, 0.096 infections per 100 catheter days), probably the result of careful timing of the procedure and meticulous catheter care. However, technical problems (catheter migration, fraying and breaking) required removal of 29 per cent of catheters. The quality of life in these children was significantly improved by use of RA catheters despite the technical problems.

Children with cancer in West Virginia now have an excellent chance for long-term survival or cure if given newer methods of therapy (Table 1).[1-11] Optimal therapy is complicated and potentially very toxic. Its success depends on four key factors: a well-coordinated multidisciplinary approach from the time cancer is first suspected;[12] treatment at a major pediatric oncology center in conjunction with coordinated cancer study group protocols;[13] use of early aggressive, multi-agent chemotherapy; and improved supportive measures to address the medical, psychiatric, and psychosocial complications of the cancer and its therapy. One major disadvantage to this aggressive care is the necessity for multiple, painful attempts at venous access. The children and their parents dread these frequent "sticks" more than anything else.

Indwelling silastic right atrial (RA) catheters for supplying chronic venous access were introduced by Broviac[14] in 1973 and modified by Hickman[15] in 1979. A Hickman catheter is larger with an internal diameter (I.D.) of 1.6 mm as compared to a one-mm I.D. for the Broviac (Figures 1,2). Their use has markedly improved the quality of life for the pediatric cancer patient but is associated with certain distinct risks and potential morbidity. This report describes the experience of the Pediatric Oncology Service at West Virginia University (WVU) Medical Center, Morgantown, with RA catheters. Catheter benefits and complications will be noted, as well as guidelines for patient selection and use.

Methods

Details of RA catheter insertion have been described and are similar for children and adults.[14,15] The catheter is inserted aseptically with the child under general anesthesia in the operating room. One-centimeter transverse incisions are made over the planned insertion site in the subclavicular area and exit site over the lower ribcage. The catheter is tun-

TABLE 1
Survival Rates for Pediatric Cancer Patients

Disease	*Per Cent Surviving*	*Time After Diagnosis (Years)*
Acute Lymphoblastic Leukemia (ALL)		
All types[1]	45%	8
T-Cell ALL[2]	46%	3
Non-Hodgkin's Lymphoma		
All Types except Burkitt's[3]	57%	3
Localized[4]	84%	3
Burkitt's[5]	75%	4
Hodgkin's Disease[6]	76%	10
Neuroblastoma[7]		
All stages, ages	58%	2
<1 year of age at diagnosis	93%	2
>2 years of age at diagnosis	35%	2
Stage I	100%	2
Stage IV >1 year of age at diagnosis	9%	2
Wilms' Tumor[8]		
Favorable Histology	85%	3
Unfavorable Histology	35%	3
Rhabdomyosarcoma[9]		
All Sites	45%	6
Extremity	33%	6
Genitourinary	60%	6
Osteosarcoma[10]	52%	5
Acute Myelogenous Leukemia[11]		
All patients	13%	2
Those who attained complete remission	49%	2

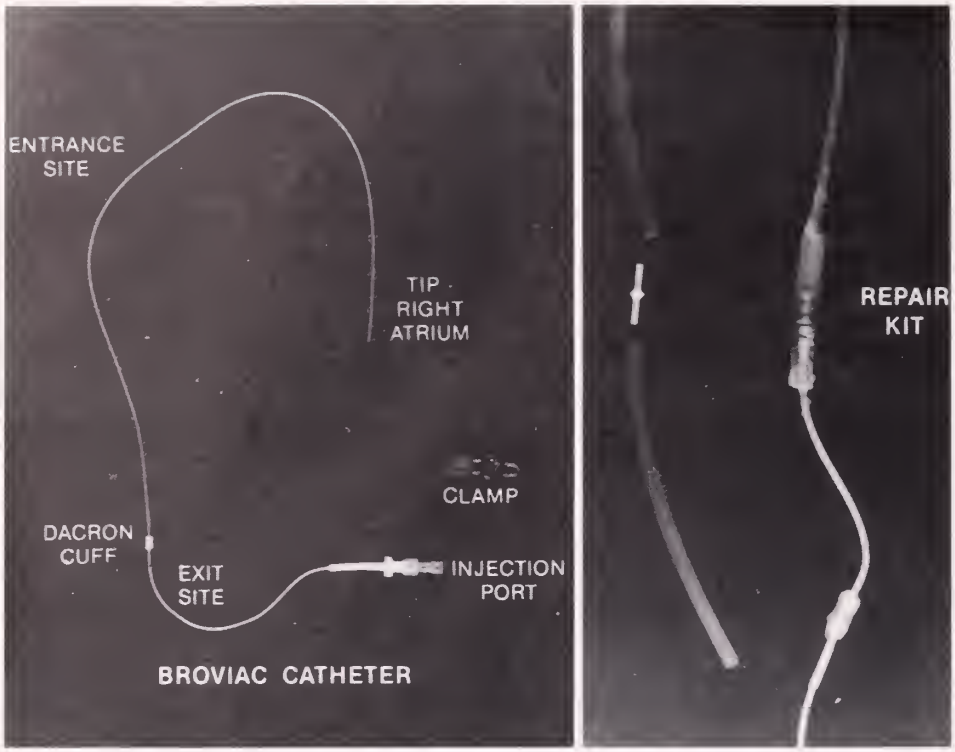

Figure 1, left. A Broviac catheter with its injection port and clamp. Right: The stent for repair and a repaired catheter.

neled subcutaneously from the lower incision to the upper one. The Dacron cuff is usually positioned in a subcutaneous pocket about one cm proximal to the exit site. Fibrosis around the cuff anchors the catheter and acts as a barrier against ascending infection. The catheter is then positioned externally along its anticipated route and shortened to an appropriate length after fluoroscopic visualization of the right atrium. The proximal end is inserted via a split sheath introducer through the right subclavian vein into the right atrium under fluoroscopic control.

Figure 2. Injection of chemotherapy through the injection port. Extra tape below injection port is to prevent excess bending and thus catheter fraying at junction to hub.

The catheter is checked for adequacy of flow and flushed with heparinized saline. The incisions are closed with subcutaneous absorbable sutures. The choice of catheter size is determined by the size of the child.

Postoperative care of RA catheters is critical. Only nurses and resident physicians trained by the pediatric oncology nurse are allowed to change dressings, draw blood, or manipulate the catheter in any way. Medical students do not work with the catheters. Thorough education of parents on catheter care begins before catheter insertion and continues in the hospital until the parents have demonstrated good technique and reasonable confidence. Parents are taught aseptic technique, catheter management and dressing care. They take home an emergency repair kit, an instruction manual, a telephone number to call for emergencies and a month's supplies. If applicable, catheter care is discussed with the referring physician or local health professional, and a manual is provided.

Results

Twenty-one RA catheters (19 Broviac and two Hickman) were placed in 16 oncology patients from September, 1983, through May, 1985. All but one of our 19 Broviac catheters were four or five French. Patients ranged in age from two months to 14 years with a median age of three years, mean age of four years, 11 months. Diagnoses in these children included acute lymphoblastic leukemia (ALL) (five), acute nonlymphocytic leukemia (one), brain tumor (three), other solid tumors (six): osteosarcoma, Stage IV neuroblastoma, malignant mesenchymoma, malignant hemangiopericytoma, and histiocytosis X with cystic fibrosis (one). All but one of the catheters (a size 3 French) were used for blood drawing. All were used for administration of chemotherapy and fluids, most for transfusion of blood or blood products, and more than half for medications (antibiotics, contrast material for radiologic studies, sedatives or analgesics).

The first patient was clearly terminal and infected and had no remaining peripheral venous access sites for antibiotics or pain medication. The other children had RA catheters placed prior to receiving chemotherapy or when they were not severely neutropenic or infected.

Catheters were placed in 14 children because their protocols required frequent intravenous injections or infusions of chemotherapy and serial monitoring of blood counts and chemistries. These children had a high likelihood of subsequent severe neutropenia and fever requiring the administration of intravenous antibiotics. Two catheters were placed initially for hyperalimentation. We do not place RA catheters in children who receive only occasional injections.

Insertion Problems Minor

There were five minor problems during or following insertion. One patient had a transient cardiac arrhythmia thought to be related to the catheter tip being in the right ventricle. Two patients each required a second incision for adequate insertion because of technical difficulties

TABLE 2

Major Complications of Right Atrial Catheters in 16 Pediatric Oncology Patients

Category	*Number of Episodes*	*Manifestations*	*Outcome*
Infection	3	Cellulitis of tunnel with *Klebsiella pneumoniae* and *S. aureus*	Afebrile with antibiotics; died with progressive disease
		Cellulitis and infected hematoma at exit site	Cleared with intravenous antibiotics
		Bacteremia with *S. epidermidis* and *Streptococcus faecalis.*	Cleared with antibiotics
Surgical and Technical	7		
Bleeding	(2)	Oozing x 48 hours related to thrombocytopenia	Stopped when matched platelets given; hematoma infected
		Hemoglobin fell 14.0 to 7.0 gm/dl post-operatively	Lacerated catheter replaced Transfused
Catheter migration out of chest	(4)	Dacron cuff fully exposed poor or no blood return	1 fell out (no bleeding) 3 surgically replaced 1 repositioned from jugular to right atrium under anesthesia, later replaced
Clot in line	(1)	At narrowed repair site, secondary to inadequate heparinization during an insulin tolerance test	Catheter re-repaired*
Equipment Failure (Catheter)	5	2 frayed connection of outer sheath at hub (1 with full thickness tear)	Catheter repaired*
		1 subcutaneous leak	Catheter replaced
		1 broken hub	Catheter repaired
		1 outer sheath left in chest wall when catheter removed.	Left in place without problem

*Repair involves cutting the catheter proximal to the defect, splicing on a new piece of catheter and hub. The spliced site has a much narrower lumen than the rest of the catheter.

in gaining access to the right subclavian vein. One patient required a direct subclavian cutdown after several unsuccessful attempts at subclavian puncture. Mild bleeding in one child secondary to moderate thrombocytopenia was controlled with pressure dressings without a significant fall in hemoglobin level.

Complications in Nine Patients

No complications were noted with 11 catheters. Table 2 details the significant complications seen in nine patients (56 per cent). There were three episodes of definite infection (19 per cent of patients). Attempts to pass a double lumen catheter in an 11-kg child in order to administer Amphotericin B and hyperalimentation were unsuccessful. He then received an adult-sized Hickman catheter and developed a tunnel infection with the same organisms as in a previous septic abscess episode. He was severely neutropenic, thrombocytopenic, and febrile when the catheter was placed.

One child developed a hematoma and cellulitis at the exit site within two days of insertion. Her incision oozed for 48 hours until moderate thrombocytopenia was corrected with matched platelets. Intravenous vancomycin (Vancocin) and gentamicin (Garamycin) cleared the infection.

One child had persistent fever for one week following gastroenteritis. *S. epidermidis* and *Streptococcus faecalis* were identified in three sets of blood cultures. He had no other recognized site of infection. He recovered following 14 days of intravenous gentamicin and vancomycin.

Major intraoperative and postoperative bleeding occurred in one child (hemoglobin fell 14.0 to 7.0 gm/dl) secondary to laceration of the subcutaneous distal end of the catheter at the time of skin closure.

Equipment-Failure Complications

Most of our major complications have been either technical or equipment (catheter) failure in origin. Part of the injection port of one catheter broke off in the end of the catheter hub, necessitating repair. In two children, four catheters migrated externally. The exposed Dacron cuff no longer secured the catheter. One of these fell out while the child was playing. The three others were surgically removed. In two instances the outer catheter sheath frayed at the junction of the catheter and hub and had to be repaired. One catheter was removed after it developed a leak into the subcutaneous tissue proximal to the anchoring Dacron cuff. This occurred in a very thin child with the catheter cuff positioned over a bony prominance. One catheter was thought to have been completely removed after completion of therapy; however, a subsequent chest radiograph revealed a 12-cm subcutaneous segment of external catheter sheath.

Table 3 summarizes the duration of catheter usage. Mean catheter duration was 148 days with a range of one to 368 days. Seven catheters were surgically removed and one fell out. Of the three not reinserted, therapy was finished in two; the third child, whose catheter had migrated, felt he could handle the venipunctures. No catheter was removed for either infection or thrombosis. The five children who died (three at home, two in the hospital) were receiving intravenous products through their catheters until the time of death.

Discussion

Staff resistance to the introduction of the RA catheters in our patients initially was high: they were believed to be too dangerous in families who lived far away; too complicated for our rural parents to care for: and our infection rate would be too high. These objections disappeared after training in catheter care was given and the staff saw how the quality of life in even a terminal patient could be significantly improved.

Five of our patients lived more than 100 miles away (range 15-210 miles, mean 86 miles). Although our par-

ents' formal education was limited to high school or less, their incentive to learn and performance have been excellent. There have been no problems that could not be handled by telephone, temporizing until the next planned visit. Catheter acceptance has been good by the parents, patients, nursing staff and the housestaff. Patients and parents are much less anxious when they come for chemotherapy now.

Careful use of the catheters by parents and local physicians has saved families considerable time and travel expense. Parents of two children draw blood from the catheter for counts to be done in local laboratories. Two parents give intravenous chemotherapy at home. In three other instances, family physicians have given blood, platelet transfusions, and chemotherapy through the catheter.

Infection Most Troublesome

Infection associated with RA catheters is the most troublesome reported problem. Catheter-related sepsis occurs in seven to 27 per cent of reported patients.[16-18] RA catheter-related infections occurred in 19 per cent of our patients (14 per cent of our catheters) for a rate of 0.096 infections per 100 catheter days. This is considerably better than in other pediatric series. In one series, Broviac catheter-related bacteremia developed in 22 per cent of children or 45 per cent of catheters for a rate of .26 per 100 catheter days.[17] In another series, 28 per cent of catheters were associated with one or more episodes of cellulitis (.19 per 100 catheter days) and 43 per cent with bacteremia (.3 per 100 catheter days).[18] The infection rate for 1,088 Hickman catheters in adults was 0.14 per 100 catheter days.[19]

We believe several factors contribute to our low infection rate: intensive education of parents and caregivers on catheter care; limiting the number of health professionals dealing with the catheters; inserting the catheters when the child is not infected, neutropenic, bleeding, or drug toxic if at all possible (i.e. before any therapy in solid-tumor patients or when in remission in leukemic children); meticulous care of the catheters including changing the injection port after any blood drawing or administration of blood products. Others have suggested that the prophylactic use of trimethoprim-sulfamethoxazole (Bactrim) protected against catheter-related infection.[20] Seventy-five per cent of our patients received this prophylactic regimen. Our one child with sepsis was not taking trimethoprim-sulfamethoxazole.

Infection associated with RA catheters is the most troublesome reported problem. Catheter-related sepsis occurs in seven to 27 per cent of reported patients.

Catheter Complications

Nine (56 per cent) of our patients had 15 major catheter complications (Table 3) or .48 per 100 catheter days; 28.6 per cent of catheters were removed (or fell out) for non-infectious reasons. Non-infectious catheter complications are not well described in the literature, but catheter dislodgment (migration) is said not to be frequent.[21] At least 35 per cent of children had major complications (.36 per 100 catheter days) with 6.5 per cent catheters removed for non-infectious reasons in one series.[17] Morris does not summarize his total complication rate but four per cent of catheters in children were removed for "mechanical problems."[18] In adults with Hickman catheters there were at least 0.3 major complications per 100 catheter days with 6.8 per cent catheters removed for reasons other than infection.[19] In two other series of mostly adults, 7.3 per cent and 3.8 per cent of catheters were removed for non-infectious reasons.[22,23] Although intravenous phenytoin (Dilantin) may precipitate in the line and cause RA catheter occlusion,[20] it did not do so in two of our patients.

Our two biggest problems have been exposure of the Dacron cuff so that the catheter is no longer securely anchored, and "equipment" failure in that parts of the catheter or hub have broken without undue trauma, requiring repair or replacement. Hopefully, implanting the cuff further into the subcutaneous tunnel and reinforcing the area of connection of the catheter and luer lock hub with silastic rubber cement will alleviate these problems.

TABLE 3

Right Atrial Catheter Duration in Pediatric Oncology Patients

Reason for Termination	*Number of Patients*	*Number of Catheters*	*Catheter Duration (Days)*	*Mean Catheter Duration (Days)*
Catheters Removed				
Therapy finished	2	2	368, 365	367
Catheter migration	2	4*	22, 166 51, 269	127
Catheter failure (subcutaneous leak)	1	1	70	70
Surgical mishap	1	1	1	1
Died with catheter in place and functioning	5	5	20, 83, 208, 66, 114	98
Still in place and functioning	8	8	68, 163, 66, 261, 228, 346, 46, 130	164
Total	19**	21	3111	148

*One fell out while playing.

**Some patients had more than one complication

Summary

An indwelling right atrial catheter greatly improves the quality of life for the pediatric cancer patient who otherwise would be subjected to multiple intravenous punctures for therapy and monitoring. These catheters are relatively easy to insert and maintain; however, they do present some prob-

lems of their own. Catheter complications fall into two groups: infectious and technical.

Infectious complications have been minimal in our patients. This seems to have been achieved by inserting the catheters when the patient is neither infected nor immunosuppressed, by meticulous attention to the details of catheter care, by limiting the number of care-givers, and by intensive education of the child's caregiver.

The technical problems have been more difficult to deal with and seem to relate to the catheter itself and the wear and tear imposed by active children. This report enumerates some of these problems and suggests possible areas for improvement.

An indwelling right atrial catheter greatly improves the quality of life for the pediatric cancer patient who otherwise would be subjected to multiple intravenous punctures for therapy and monitoring.

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Generic drugs mentioned in the text and their trade names () as follows: vancomycin (Vancocin), gentamicin (Garamycin), trimethoprim-sulfamethoxazole (Bactrim) and phenytoin (Dilantin).

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Vascularized Hyoid Bone For Cricoid Arch Reconstruction

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Blunt trauma to the anterior neck can result in a severe fracture and subsequent stenosis of the larynx and trachea. Successful restoration of laryngotracheal function following a fracture requires provision of cartilaginous support, repair or replacement of intraluminal mucosa, maintenance of glottic competence and the use of a stent to prevent subsequent contracture. This is a case report of a blunt injury to the neck resulting in an avulsion and fragmentation of the cricoid arch that was successfully reconstructed with a bipedicled sternohyoid hyoid bone transposition graft.

In 1938, Looper[1] used the hyoid bone to repair laryngeal stenosis. Ward,[2] in 1977, and Wong and Kashima,[3] in 1978, described the use of a pedicled sternohyoid hyoid bone interposition graft for repair of laryngotracheal stenosis. This technique ensures a vascularized and a non-resorbable bone graft.

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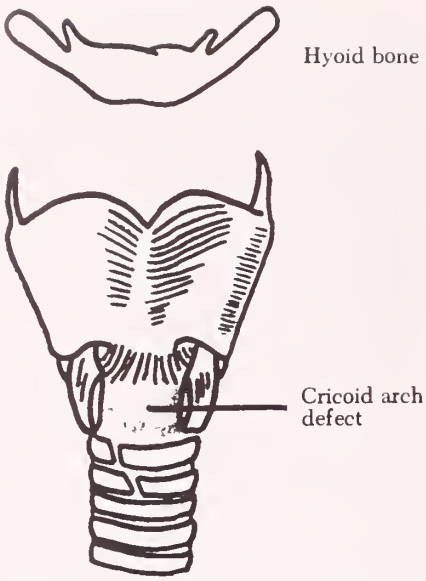

Figure 1. Schema of cricoid arch defect.

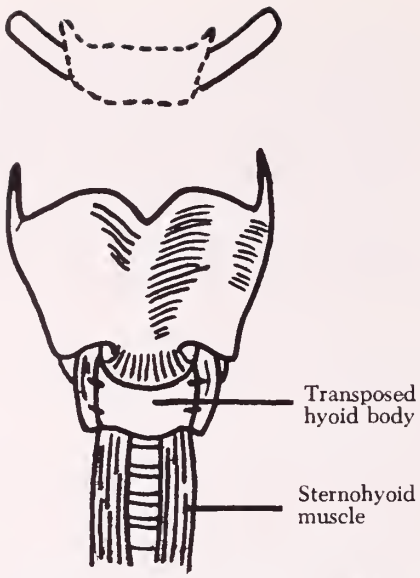

Figure 2. Schema showing repair of cricoid arch with vascularized hyoid bone.

Case Report

While riding his motorcycle, a 17-year-old, white male patient sustained a severe blunt trauma to his anterior neck from a head-on collision with a low-hanging telephone cable. The patient was taken to a nearby hospital where he was revived from respiratory arrest with an endotracheal intubation and cardiopulmonary resuscitation. He was transferred to Charleston Area Medical Center, Memorial Division, two days later.

Examination revealed a conscious, stable patient with indwelling endotracheal, nasogastric, and bilateral chest tubes. Palpation of the neck revealed subcutaneous emphysema and loss of prominence of the cricoid and cervical trachea A tomogram revealed disruption of the cricoid cartilage and the presence of air in the soft tissue of the neck. A chest x-ray showed expanded lungs. The patient was scheduled for surgery the next morning.

Technique

Under endotracheal general anesthesia, a tracheostomy was performed in a vertical manner, at the level of the third and fourth tracheal rings. The translaryngeal endotracheal tube was removed after a size seven endotracheal tube had been inserted through the tracheostomy.

A fiberoptic bronchoscopy through the tracheostomy revealed an intact thoracic portion of the trachea. A laryngoscopy showed an intact supraglottis and glottis and a disrupted subglottis, evident by exposed bony fragments and displaced soft tissue. An esophagoscopy revealed an intact esophageal mucosa.

A midline vertical skin incision was then made from the level of the hyoid bone to the tracheostomy. Exposure of the laryngotrachea revealed absence of the cricoid arch (Figure 1) due to its avulsion and total fragmentation. Fracture of the first and second anterior tracheal rings also was noted.

A vertical splitting incision from the first to the third tracheal rings was made to expose the tracheal lumen. The posterior tracheal mucosa was found to be detached superiorly from the posterior cricoid lamina and was infolded inferiorly through the first and second tracheal rings. The mucosal infolding could have been caused by the initial endotracheal intubation that saved his life. The avulsed posterior tracheal mucosa was unfurled and reattached to the edge of the posterior cricoid lamina with a 4-0 absorbable suture.

Bipedicled Sternohyoid Hyoid Bone Graft

The suprahyoid muscular attachment was incised and the hyoid body was cut at the lesser hyoid cornual level with the inferiorly-based bipedicled sternohyoid muscles attached to the hyoid body. The vascularized hyoid body was then transposed horizontally into the cricoid arch defect and was sutured to the posterior cricoid body with a #26 wire suture (Figure 2) The attachment was secured with muscular and fascial tissue. An indwelling Montgomery T-tube tracheal stent[4] was placed just below the vocal cords superiorly and to the second tracheal ring inferiorly. A sternothyroid muscle patch[5] was used to support the fractured first and second anterior tracheal cartilages. A cuffed tracheostomy tube was left in place below the stent for possible assistive respiration and also for tracheal toilet. The skin incision was closed over a suction drain after irrigating the neck with hydrogen peroxide solution and rinsing it with saline solution. Intravenous, broad-spectrum antibiotics[6] were administered.

Postoperative Course and Results

The postanesthetic recovery of the patient was uneventful. The nasogastric and tracheostomy tubes were maintained for three weeks due to the severity of the injury and to avoid contamination of the reconstructed cricoid arch and airway lumen. Following decannulation, the patient was able to breathe well through the plugged Montgomery T-tube tracheal stent. He was able to swallow food after removal of the nasogastric tube. The Montgomery T-tube tracheal stent was removed six months postsurgically. The reconstructed cricoid arch (Figure 3) remained viable with a patent airway lumen and mobile vocal cords.

Figure 3. Radiograph showing viable hyoid bone graft for cricoid arch repair.

Discussion

The cricoid cartilage is the only complete ring in the respiratory tract and is the narrowest part of the larynx and trachea. If the cricoid ring is fractured, contraction results in a severe obstruction or marginal compromise of the laryngeal airway. Cricoid replacement must be considered for a severe cricoid fracture, and an effective procedure is the bipedicled sternohyoid hyoid graft. This bipedicled graft also can be interposed for cartilaginous support of a fractured larynx and trachea.

According to Thawley and Ogura,[7] the advantages of the vascularized sternohyoid hyoid graft are as follows: 1. Firm graft to support the architecture of the airway lumen; 2. Accessibility in the same operating field; 3. An autograft, thus minimizing an immune rejection phenomenon; 4. Vascularized pedicled graft decreasing resorption possibility; and 5. A one-stage procedure.

Summary

A bipedicled sternohyoid hyoid bone graft was used to reconstruct a comminuted fracture of the cricoid arch. A Montgomery T-tube tracheal stent was used for intraluminal support and for epithelialization. The hyoid bone graft remained viable, resulting in a patent subglottic space and successful speech function.

Acknowledgements

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Medical Grand Rounds

West Virginia University Medical Center

Edited by Irma H. Ullrich, M. D., Professor of Medicine

Meningococcal Disease

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Characterized by a variety of clinical presentations, meningococcal disease affects many members of our society. Its presentation may be acute in the form of meningitis or fulminant septicemia, or chronic caused by sporadic bacteremia. The diagnosis is suspected when classic signs and symptoms of fever, rash or arthralgias are observed; it is established by culturing Neisseria meningitidis from blood or spinal fluid or by detection of the cell wall antigen. Treatment must be prompt and consists of intravenous penicillin (300,000 units/kg/d) for 10 to 14 days.

Though often associated with foreign epidemics, meningococcal disease also is an important cause of disease in individuals in the United States. Because of a wide spectrum of clinical presentations, the diagnosis of meningococcal disease can be difficult. Early recognition and treatment may be life-saving, making familiarity with meningococcal disease important to all primary care providers.

In this paper, we present a recent case of meningococcal disease and review its history, etiology, epidemiology, diagnosis and treatment.

Case Presentation

The patient is a 45-year-old female from Arizona who was visiting relatives in western Pennsylvania. She was well until the evening before admission when she felt feverish and lethargic. The following morning she was discovered in bed stuporous and covered with a "purple rash."

There was no history of splenectomy, chronic illnesses or affected family members.

On examination she was white and middle-aged with prominent purpura and petechiae involving her entire body. She was oriented and responsive, complaining of only leg and foot pain. Blood pressure was 60 mm Hg systolic. Temperature was 38.2° C, pulse was 100/min, and respirations were 20/min. Subconjunctival hemorrhages were noted bilaterally but funduscopic examination was normal. Petechiae were noted on mucous membranes. Her neck was supple. Respiratory, cardiovascular, abdominal, pelvic, and neurologic examinations were normal.

A presumptive diagnosis of meningococcemia was made and four million units of intravenous penicillin were administered.

Pertinent laboratory results included: white blood cell count 9,800 (11 metamyelocytes, 22 bands, 56 polymorphonuclear leukocytes), partial thromboplastin time ←90 sec., prothrombin time ←22.5 sec., platelets 65,000/mm^3, fibrinogen 28, fibrin degradation products >40, serum creatinine 3.0 mg/dl, and BUN 77 mg/dl.

Neisseria meningitidis was recovered from five of six blood cultures and identified as Group B. Cerebrospinal fluid (CSF) cultures and latex agglutination studies of CSF, blood and urine were negative.

The patient's hospital course was complicated. The rapid onset of acute respiratory distress syndrome required mechanical ventilation. Cardiovascular instability necessitated careful fluid resuscitation and support with dopamine, dobutamine, and norepinephrine. Disseminated intravascular coagulation (DIC) was present, requiring more than 60 units of blood products, and resulted in dry gangrene of extremities and third spacing of fluids. Acute tubular necrosis occurred early and produced a uremic encephalopathy warranting temporary peritoneal dialysis. Transient hepatic dysfunction and liver enzyme elevations also were observed.

The patient left the intensive care unit after 36 days and was discharged on the 71st hospital day. She recently returned for amputation of her toes, her only permanent sequela.

Historical Considerations

Meningococcal disease was first described in Geneva by Viesseaux in 1805 as an epidemic of cerebrospinal fever. The organism was identified some 80 years later by Weichselbaum in Vienna and then established as the etiologic agent of epidemic cerebrospinal meningitis by Councilman in 1898.[1] Treatment was primitive until Flexner introduced serotherapy in the United States in 1913.[1] In the 1930s sulfonamide therapy was instituted, reducing mortality to as low as five per cent.[2] More recent advances have come in our understanding of the epidemiology and pathogenesis of the disease and our ability to treat its complications.

Etiology

Meningococcal disease is caused by the bacterium *Neisseria meningitidis*. Described as a biscuit-shaped, gram-negative diplococcus, *N. meningitidis* is a fastidious organism growing best on chocolate agar and in the presence of increased carbon dioxide (CO_2).[3] The organism is found most often in the posterior nasopharynx where it may be isolated by swabbing the posterior nasal surface, inoculating on warmed Thayer-Martin medium, and incubating in an elevated CO_2 (candle-jar) environment.[3] Morphologically similar to *N. gonorrhoeae*, *N. meningitidis* can be identified more precisely with fermentation reactions. Specifically, *N. meningitidis* ferments dextrose and maltose whereas *N. gonorrhoeae* reacts with only the former.[3]

Several physical properties are important to the pathophysiology of the disease. The lipopolysaccharide (LPS) endotoxin is especially important, accounting for many of the characteristic clinical manifestations.[1] While sharing the core and lipid A components of other gram-negative bacteria, the neisseriae LPS lacks the O-antigen side chains—a difference that may explain its enhanced toxicity.[1] Other properties of the bacterium, the pili and extracellular proteases may have importance in pathogenesis as well. Both may play a role in the nasopharyngeal carrier state. The pili may affect bacterial adherence to mucosa[1] while the proteases may decrease mucosal immunity.[4]

Also important to the organism's pathogenicity is the outer polysaccharide capsule. Additionally, this "carbohydrate coat" confers on the bacterium its immunologic personality. At least nine serogroups are identified in this way, denoted A,B,C,D, X,Y,Z,Z′ (29E), and W135.[5] A second identifying property is the protein antigen which resides in the outer membrane of the cell wall.[4] Based on differences in these antigens, as many as 15 serotypes have been identified for Group B alone.[5] These serologic classifications are useful in characterizing the epidemiology of meningococcal disease.

Meningococcal disease manifests itself in a wide spectrum of clinical presentations. It may appear as an indolent illness with chronic fever and a macular rash or declare itself with fulminant cardiovascular collapse.

Epidemiology

Meningococcal disease is still a major health problem throughout the world and occurs in both epidemic outbreaks and sporadic cases. During a recent 10-year period, the annual attack rate in the United States ranged from 0.7 to 1.3 cases per 100,000 population.[6] Infants and children are more commonly affected, with the attack rates per 100,000 population being 14.4 for infants less than one year old, 4.6 for children one to four years old, and 0.3 for persons aged 20 years or older.[6]

Prior to 1972, there was a secondary peak in adolescents and young adults of 15 to 24 years. This peak has disappeared, probably due to the decline in cases in military recruits since the introduction of the bivalent AC meningococcal vaccine.[6] Males are affected slightly more often than females.[6]

Serogroup A has been associated traditionally with epidemics while serogroup B has been associated with the sporadic cases. For example, an epidemic of serogroup A meningococcal disease occurred in Nepal in 1983. In this epidemic, an annual attack rate of 103 cases per 100,000 population and a case-fatality ratio of 11 per cent were reported. Both the native population and tourists were affected.[7]

In the past, the majority of cases of meningococcal disease have been caused by serogroups A, B and C; however, serogroups Y and W135 have increased in frequency.[6] During a recent six-year period in the United States, 54 per cent of the cases were caused by serogroup B, followed by Group C (19 per cent), Group Y (11 per cent), Group W135 (10 per cent), and Group A (three per cent).[6] The highest prevalence of serogroup B is related to the sporadic nature of the disease during this period.

The meningococci are harbored in the nasopharynx of humans and are transmitted principally by inhalation of droplets of nasopharyngeal secretions. The meningococci can spread rapidly among military recruits living in close proximity.[8] A high carriage rate does not correlate necessarily with the onset of an epidemic; in contrast, a high acquisition rate, or the rapid development of a large number of new carriers, is a major factor in epidemic outbreaks.[5] Household contacts of patients with clinical disease are more likely to contract meningococcal disease. However, crowded conditions alone within a population may not be of significance in the spread of the

disease.[5] In Alaska, which has the highest attack rate of any state, alcoholics are a high risk for meningococcal disease.[6]

Clinical Presentation

Meningococcal disease manifests itself in a wide spectrum of clinical presentations. It may appear as an indolent illness with chronic fever and a macular rash or declare itself with fulminant cardiovascular collapse.[9] Wolfe and Birbara[10] (in a military setting) described four general clinical situations:

(1) Bacteremia: A patient is admitted with an upper respiratory infection, bronchitis or viral exanthem. Feeling well, he/she is soon discharged only to have *N. meningitidis* recovered from blood cultures days later. Repeat blood cultures will be negative.

(2) Septicemia: The patient presents with a sudden onset of fever, chills, generalized myalgias, weakness, nausea, vomiting, and headache. A rash is present or soon develops. There is a leukocytosis. Hypotension may be prominent. CSF is normal.

(3) Meningitis: The patient has headache, fever and meningeal signs with typical CSF changes. The state of the sensorium is varied. No pathologic reflexes are elicited.

(4) Meningoencephalitic: The patient is obtunded and abnormal deep tendon and superficial reflexes are elicited.

In these four general conditions, certain signs and symptoms are especially significant. They may present either acutely or in a more indolent manner. Meningococcal meningitis is an acute illness that was characterized in one series[11] of 53 patients by the following: fever in 45 patients, headache in 25 patients, chills in 20 patients, and stiff neck in 15 patients. Note that headache and stiff neck were reported in less than 50 per cent of patients with documented meningitis.

Meningococcal disease also may present acutely without meningitis. Fulminant meningococcemia may be heralded by petechiae which reflect the associated coagulopathy.[4] When present, affected areas can be encircled so that petechiae can be enumerated and precisely followed. Often, however, they will be inconspicuous, making careful examination of a disrobed patient a necessity. These patients also may present with disseminated purpura (purpura fulminans) as in the case above. Arthralgias also are seen in these patients, occasionally being their only subjective complaint. Early in the course of this illness, polyarticular arthritis may occur — in contrast to the oligo- or monoarticular arthritis seen during treatment of meningococcal meningitis. Similarly, pericarditis may occur either early or late in the course of the disease.[5]

Though less common than the acute meningococcal disease, chronic meningococcemia is characterized by similar signs and symptoms. In one series [12] (N=148) fever and chills were noted in all such patients. Other symptoms included rash (93 per cent), arthralgias (70 per cent) and headache (62 per cent).

N. meningitidis also has been implicated in various other conditions such as pneumonia,[4] urethritis,[4] pharyngitis,[13] ophthalmitis,[5] peritonitis,[5] and genital tract infections.[5]

In view of the relatively nonspecific clinical presentations, laboratory studies are particularly important in diagnosing meningococcal disease. Studies of blood and CSF are especially useful.

Laboratory Studies

In view of the relatively nonspecific clinical presentations, laboratory studies are particularly important in diagnosing meningococcal disease. Studies of blood and CSF are especially useful. One large series[14] reported 94 per cent (N=423) of CSF samples as positive for meningococci by either Gram's stain or culture. Another series[11] found that 91 per cent (N=153) of CSF sediment Gram's stains were correctly interpreted by housestaff, thus affording rapid diagnosis and directed treatment. Other CSF studies are consistent with bacterial meningitis. Glucose is usually less than 40 mg/dl (or low relative to serum glucose). CSF pressure and protein are elevated (median 150 mg/100 ml).[4] Acutely, many PMN will be seen (mean WBC count 1200/mm^2)[11] while a pleomorphic cellularity may follow partial treatment. Blood cultures are also very useful though not always positive in the presence of disease. Some series[14,15] suggest that roughly 50 per cent of blood cultures will be positive. Cultures and stains of other involved tissues can be done with variable results.[14]

In addition to demonstrating the meningococcus directly, the diagnosis can be made by detecting the bacterial antigen with several immunologic techniques. The advantage of such methods is their speed and specificity. However, false negative results are common — up to 50 per cent in CSF.[4] To offset this poor sensitivity, concentrated urine has been proposed as a more reliable source of antigen.[4]

Though less useful in diagnosis, other routine laboratory studies are important in treatment and prognosis. Leukocytosis with a left shift generally accompanies active disease but counts of 4,000 to 36,000 are reported.[12] The absence of leukocytosis is associated with a poor prognosis.[3] Bleeding and clotting times and platelet counts are usually unchanged in chronic meningococcemia.[12] However, in the fulminant condition with DIC one will see increased clotting times, thrombocytopenia, decreased fibrinogen, and increased fibrin degradation products.

Diagnosis

The diagnosis of meningococcal disease, then, is influenced by several factors. Characteristic signs and symptoms (fever, rash, and joint pain) observed in the context of any of the four general presentations arouses suspicion of meningococcal disease. Laboratory tests (CBC, PT, PTT, platelet count) may be helpful. Cultures and stains of body fluids should be done, and demonstration of the gram-negative diplococci or the bacterial antigen establishes the diagnosis.

The differential diagnosis depends on the presentation. When faced with

the meningitis presentation, other causes of acute bacterial meningitis should be considered. These often are differentiated by epidemiologic factors and diagnostic tests (e.g. age, CBC and CSF studies). The meningococcal rash may be confused with the more common viral exanthems. Rocky Mountain Spotted Fever (RMSF) may be considered also. Though different in epidemiology and signs (e.g. no meningismus), RMSF may be ruled out only by culture or Gram's stain of CSF. Likewise, Henoch-Schönlein purpura, acute rheumatic fever, acute bacterial endocarditis, and gonococcemia may all present in a pattern similar to meningococcemia.

Treatment

Treatment of meningococcal disease was markedly advanced in 1937 when sulfonamide antibiotics were introduced.[2] The emergence of bacteria resistant to sulfonamides led to the subsequent use of penicillin and chloramphenicol in these infections. Currently, intravenous penicillin is recommended as the first-line agent in a dose of 300,000 units/kg/day in adults up to a maximum of 24 million units/day.[4] A 10- to 14-day course of antibiotics is generally efficacious. Intrathecal penicillin is contraindicated. In patients allergic to penicillin, chloramphenicol 100 mg/kg/day (up to 4 g total/day) is recommended.[4] This regimen is recommended for all meningococcal diseases. Generally, one can obtain appropriate cultures before instituting antibiotics. However, it should be emphasized that in those cases of fulminant meningococcemia, antibiotics may be life-saving and should be instituted immediately. Respiratory isolation should also be instituted until 24 hours of appropriate I.V. antibiotics have been given.

In addition to treatment of the primary disease, supportive care is often necessary for complications of meningococcal disease. The fulminant meningococcemic presentation, as exemplified in the case report here, is associated with a myriad of serious complications. Cardiovascular collapse is perhaps the most urgent. Beyond the expected septic shock associated with gram-negative organisms, meningococcal shock results in a significantly higher incidence of myocardial depression.[9,15] In general, a septic shock profile (low central venous pressures, low systemic resistance, high cardiac output) will precede the cardiogenic shock.[16] However, our experience was clearly different, illustrating the necessity of close hemodynamic monitoring in an ICU setting. Treatment can then be tailored to the patient's clinical status and may include both volume expansion by IV fluids and inotropic support. Recognition of the combination of septic and cardiogenic shock may make the addition of dobutamine, dopamine or norepinephrine appropriate.[9,16] Pericardial effusion also may occur and should be excluded as a reversible cause of cardiogenic shock.

The hypotension experienced in shock jeopardizes many vital organs. In our case acute tubular necrosis and renal failure developed, resulting in uremic encephalopathy. Temporary peritoneal dialysis was utilized. Similarly, abdominal organs are at risk and should be observed for signs of malfunction.

Currently, intravenous penicillin is recommended as the first-line agent in a dose of 300,000 units/kg/day in adults up to a maximum of 24 million units/day.

Treatment of concomitant DIC is essentially supportive. Replacement of blood and blood products (plasma, platelets and Vitamin K) may be etensive as indicated by clinical and laboratory parameters. The use of heparin is controversial and, therefore, cannot be recommended.[17,18] Extensive bleeding also may compromise vital organs. Subcutaneous hemorrhage leads to dry gangrene and bullae. Vascular instability at this level causes burn-like third spacing of fluids and electrolytes. Adrenal hemorrhage (Waterhouse-Friderichsen syndrome) is a classic sequela once thought to contribute to the state of shock. However, the rare occurrence of adrenal insufficiency in these patients makes steroid replacement usually unnecessary.[19] High-dose steroids, on the other hand, may be useful in reversing the acute phase of shock (e.g. prednisone 30 mg/kg x 1-2 doses),[20] though even this indication is questioned.[5]

Prophylaxis

Beyond treatment of the primary disease and its complications is the issue of chemoprophylaxis of individuals exposed to the index patient. Indiscriminant prophylactic use of sulfonamides has led to the emergence of resistant strains of bacteria.[4] Since then, new drugs have been recommended and guidelines established for their use. At present, rifampin 600 mg orally every 12 hours for four doses for adults and 10 mg/kg every 12 hours for four doses in children are suggested for intimate contacts.[21] This should include household members (those who have eaten with, kissed, or hugged the patient) and those in close quarters (military barracks, dormitories, day care centers or nursing homes).[22] Many experts recommend administering rifampin to the index case also to eradicate nasopharyngeal carriage but this usage is not well-established. Medical personnel are not, in general, at increased risk and should not receive prophylaxis unless involved in intimate exposure (e.g. mouth-to-mouth resuscitation).[23,24] Candidates should be forewarned of the expected red discoloration of their urine from rifampin. Minocycline is an acceptable alternative to rifampin but is generally less desirable because of associated vertigo. Secondary cases usually occur within 10 days of exposure.

Another means of prophylaxis is vaccination. The immunogenic polysaccharide capsule provides a means for acquiring immunity to Groups A,C,Y, and W-135 bacteria.[5] Their usefulness and safety in adults in epidemic areas is established. Less clear is their role in other populations.

Prognosis

It is not particularly useful to discuss in detail the prognosis of meningococcal disease. The wide range of clinical expressions makes reports with precise percentages of morbidity and mortality difficult to

apply to particular cases. Moreover, most reported series predate the advances we now enjoy in critical care medicine. Nevertheless, there are general factors associated with a poor prognosis which bear mention. These include (1) absence of meningitis; (2) fever; (3) thrombocytopenia; (4) petechiae; (5) hypotension; and (6) absence of leukocytosis.[25] We would reinforce also the importance of early recognition and treatment in the prognosis of meningococcal disease. The observation of lower mortality rates in epidemics may be explained by improved recognition, making early diagnosis a final significant prognostic factor.

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In My Opinion

FMGs, AMA Should Work Together

Recently our local medical society attended a meeting of the Legislative Committee of our Auxiliary. One of the speakers was Merwyn G. Scholten, the Executive Director of the West Virginia State Medical Association. During his talk he pointed out the advantages of AMA membership. Exception to this was voiced by one of our most respected foreign medical graduates (FMG) who did not feel that the AMA was making any effort to resolve the roadblocks for licensure of the FMG. The Executive Director stated correctly that the problem, if any, must be brought to the attention of the House of Delegates of the AMA and that this could result in corrective action, if indicated. In this I would agree and suggest that American graduates desiring to practice in other countries would encounter similar problems and would have to take similar actions through their medical organizations.

In order to understand the problems of the FMG we must take an historical approach. One first must look at the Immigration and Nationality Act (McCarron-Walter Act) of 1952. This act provided annual immigration quotas of one sixth of one per cent attributable to national origin based on the 1920 census; it did not apply to western nations.

Modifications were made in 1965, to become effective in 1968, providing for the admission of 170,000 persons per year for all nations outside the Western Hemisphere. with a limit of 20,000 per year from any one nation in both the Eastern and Western hemispheres. Immigration from western nations was restricted to 120,000 per year.

The modifications also gave preference to skilled workers (50 per cent), parents of American citizens (30 per cent), and to spouses and children of permanent-resident aliens (20 per cent).

Following these acts, further modifications were made to accommodate displaced persons. At present, the immigration policies have been aggravated by the illegal influx of people from our neighboring countries to the South and other regions. Congress has made many futile attempts to come to grips with the situation. Hopefully, a rational approach will be develop in the near future.

The position of the FMG is understandable but, again, this understanding must be approached from the historical point of view. When the second World War ended there was a tremendous influx of discharged doctors into the residency programs. Not only were these programs quickly filled but hundreds of other residency programs were perhaps too quickly developed. This resulted in a source of cheap labor for the hospitals and our profession. We became addicted to this new form of medical and hospital care.

When the supply of American doctors dried up we turned to the FMG. One of the objectives was to train them in American methods which they could, in turn, take back to their countries of origin to provide better medical care, but the FMG, understandably, realized the advantages in the economic and professional aspects of remaining in this country. Our medical profession, our congressmen, our citizen action groups, and others also saw the advantages in keeping FMGs in this country and supported them as best they could. All of this seemed reasonable and was to everyone's credit.

While this solved one problem, others were created. There were the problems of language and licensure. There was the problem of different methods of medical education. There was the problem of the quota system. These problems were handled by way of examinations such as FLEX. Whether this approach is fair or adequate is a question that probably bears further study. Finally, there is the problem that our American medical schools are graduating a large number of doctors, and that soon there will be too many doctors chasing too few patients. This becomes an economic situation, for if the slots are filled by FMGs, how do our American doctors find practice situations? It is sort of like the industrial problems that resulted in antidumping laws.

We in this country have a problem that can only be answered by a strong and representative AMA. The FMG and the American-trained physician must meet on a common ground so that adequate discussion, analysis and solutions can be accomplished In union there is strength. I would hope that the FMG would see the advantage in this union and understand that fragmentation is self-destructive.

Herman Fischer, M. D.
Bridgeport

We welcome contributions to *In My Opinion*. Submissions should be addressed to Stephen D. Ward, M. D., Editor, *The West Virginia Medical Journal*, Box 4106, Charleston, West Virginia 25364.

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Uncompensated Care

The term uncompensated care may not be familiar, but the circumstances are familiar to every physician. It refers to the medical care of those patients who either have no insurance or have inadequate insurance coverage. Some are employed in low-paying jobs; many are unemployed. Their meager resources are such that they do not qualify for Medicaid.

Estimates suggest that 25-30 million Americans are uninsured, and an additional 20 million are underinsured. Add to this the fact that Americans pay a 30-per cent higher out-of-pocket contribution to their health care than in most nations and the problem is a major one.

Over half of the uninsured are below the age of 25. Young families are least able to handle major health care expenses.

West Virginians are especially vulnerable to this situation because of the state's high unemployment rate.

Physicians will, as usual, continue to provide the care needed for those who are unable to pay. We hope shortly to make a proposal that will seek to document the amount of uncompensated care that the physicians of West Virginia provide. This is an important piece of information that has never been adequately collected.

Even with our contribution, however, the hospital bills, laboratory, x-ray and charges of other health providers represent major cost items which are now either written off or "shifted" to those who can afford to pay.

Senator Gerald Ash has made a major proposal which will be widely debated during the coming year. He suggests that adequate insurance be provided for every West Virginian who cannot afford it through restoring the state's tax on food.

This may be labelled as regressive legislation but it makes a lot of sense. When the state's tax on food was removed, one of the reasons given was that it penalized the needy. With Senator Ash's proposal the poor would be direct beneficiaries of the tax.

It is very clear that the federal budget reduction is going to make the state increasingly responsible for helping its own citizens. We can do it, and we'll be much stronger in the long run for it.

David Z. Morgan, M. D., *President*
West Virginia State
Medical Association

WESPAC Contributions Needed As Primaries Near

Physicians interested and concerned about responsive government have the opportunity to assist in electing candidates whose views and philosophies most nearly parallel their own.

How? By joining WESPAC, the political action arm of West Virginia Medicine. A $50 contribution makes the physician or spouse a regular member of WESPAC while a $100 or more contribution qualifies one as a sustaining member and earns the right to wear the "99+" pin — this year a silver lapel pin commemorating the 25th anniversary of AMPAC, the AMA's political arm on the national level.

Since corporations cannot make political contributions, all donations should be on your personal check rather than on corporate checks. Contributions are shared with AMPAC to support West Virginia candidates at the federal level as determined through the joint decisions of WESPAC and AMPAC.

Through a single contribution a physician can support candidates favorably inclined toward medicine's views and philosophies on both the state and federal level.

As of mid-February, 166 physicians and spouses had seen fit to make a political investment in WESPAC. This figure includes 113 regular members and 53 sustaining members. Just two years ago we had only 12 sustaining members at Annual Meeting time! But we cannot rest on our laurels; we must continue to attract WESPAC/AMPAC members.

WESPAC's short-term goal is to have at least 100 sustaining members and 300 regular members by year's end. Won't you do your part by joining now?

We solicit not only your dollars for PAC contributions, but we earnestly invite your assessment of candidates and their prospects in your area as the WESPAC Board faces the difficult decisions of determining which candidates for the House and Senate merit the support of the medical community.

And finally, we earnestly suggest that our members become actively involved in the actual campaigns of candidates they believe in and support. The donation of a few hours time knocking on doors handing out compaign materials or working to register voters, making phone calls or sponsoring a neighborhood coffee and "meet the candidate" effort will be as important and perhaps even more effective than dollars donated.

Short of running for an office yourself, the next best thing you can do is to financially support your favorite candidates if you have any hope of making gains in the legislative arena in the future. If you don't have a personal favorite candidate, a contribution to your profession's political action committee allows you to speak with physicians collectively.

Please send your check today.

Professional Liability – A Slow Virus

An intriguing mystery under investigation at research centers about the world is that associated with the phenomenon of slow viruses. These are infectious conditions wherein the infecting agent apparently enters the body and lies dormant for many years prior to its initiation of activity leading to symptoms of disease. Dementing diseases such as Jakob-Creutzfeldt disease and some forms of cancer are suspected of being caused by slow viruses. None seem to be trivial.

On occasion, not necessarily appropriately, one might recall from the study of embryology in medical school days comments on the frequency with which ontogeny mimics phylogeny. A recent trip to the library and perusal of Volume One of *The Journal* brought one such occasion. The allusion to the embryological phenomenon came clearly to mind but whether a slow virus mimics our malpractice problem. or vice versa, is open to question.

The Journal was initially published bi-monthly. Volume One - Number One appeared in August 1906. In the October 1906 Volume One-Number Two issue appeared the following note by the Editor, one S. L. Jepson, M. D., of Wheeling:

> The Chicago Medical Society several years ago instituted a plan of defense of its members against suits for alleged malpractice, nearly all of which, as is well known, are grossly unjust. Since our State Association has appointed a committee to consider and report on this subject, our readers will be interested in this report of the Chicago Society committee having this matter in charge.

There follows then the report of the Chicago Medical Society referred to and additionally a reprint of an editorial from the Illinois Medical Journal on the same subject.

(Continued on Next Page)

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

From the Chicago Medical Society report the following quote seems timeless in its aptness and in its appeal:

> Among the more common causes of malpractice suits this year we notice are an effort to evade the physician's bill, obstetrical cases, injuries of children, and insufficient attention on the part of the physician to his patient.
>
> We would again call your attention to the fact that anyone, no matter what his standing or reputation, can bring a malpractice suit regardless of cause. He is frequently urged to do so by some irresponsible attorney. If a law could be enacted which would require an indemnifying bond before instituting suit, few malpractice suits would be heard of. . .

The following from the Illinois Medical Journal editorial likewise seems to have lost little of its freshness:

> . . . It has been abundantly demonstrated that 90 per cent of all malpractice and damage suits against physicians originate in the activity of some members of the legal profession, who work up these cases upon a contingent fee basis. The lawyers who do this kind of work generally possess more shrewdness and knowledge of the weaknesses of human nature than they do reputation and standing in their profession . . .

The professional liability virus is not new, not another AIDS pestilence sweeping in epidemic fashion through the countryside. This virus came on us generations ago and has been gathering strength and virulence these many years.

Like other pestilences, slow or quick in origin, this modern day plague is likely to produce fatalities. The initial fatalities will be physicians and their practices. Patients without physicians, without medical care, will be the secondary victims. They will routinely die of the routine things of which those without medical care have always routinely died.

It is perfectly clear for anyone willing to look that today it is obstetrical care and high-risk surgical procedures that are moribund from the fulminating professional liability disease. Other medical specialities are sickening and as they weaken, their newer, most advanced and hence riskiest treatments and procedures are dropped, and the potential beneficiaries of these are left their routine fate.

Perhaps those medical researchers studying slow viruses will be able to suggest a cure, perhaps only a metaphor to help us understand the natural history of their and our problems. The solution to ours seemed so simple so many generations ago.

Our Readers Speak

JRA Diagnosis Defended

Doctor Houston[1] raised the question about the diagnosis of JRA in my case report ["Urticaria Associated With Juvenile Rheumatoid Arthritis," October, 1985, issue of *The Journal*]. I believe the atypical nature of my case and the short description of the case caused him to misunderstand.

My patient had "obvious" joint swelling for a short period; however, he still complained of intermittent pain on his leg, and limping was observed even four months after the beginning of aspirin therapy.

Current proposed revision of JRA criteria[2] requires the presence of articular swelling or limitation of motion in addition to pain, tenderness, or heat which is persistent for a minimum of six weeks. Typical rash of rheumatoid arthritis, which Doctor Houston described, has been observed in systemic JRA. I mentioned that my case seems to be the polyarticular type of JRA.

I'd like to mention that certain viral arthritis is not readily differentiated from JRA. Chantler[3] recently reported the isolation of Rubella virus from peripheral blood or synovial fluid mononuclear cells in seven of 19 children with chronic joint disease.

Chronic HB virus infection associated with necrotizing vasculitis may induce systemic JRA.[4] Polyarthralgias, arthritis, and urticaria in early stage with hypocomplementemia and HB antigenemia were described. These symptoms resolve with the appearance of clinical hepatitis and HB antibody. In spite of persistent vasculitis in my case, complement-3 level was normal, and he didn't develop clincially noticeable hepatitis.

1. Houston BD. West Va Med J 1986; 82:13.

2. Brever EJ, *et al.* Current proposed revision of JRA criteria. Arthrit Rheum 1977; 20 (2, Suppl): 195.

3. Chantler JK *et al.* New Engl J Med 1985; 313:1117.

4. Arthritis in Childhood, Report of the eightieth Ross conference in pediatric research. Ross Laboratories, 1981, pp 40-41.

Jung W. Park, M. D.
Clarksburg, WV 26301

Solitary Thyroid Nodule, Geriatric Hypertension Convention Topics

Richard E. Kleinmann, M. D.

Frederick C. Whittier, M. D.

The thyroid nodule and geriatric hypertension will be among subjects discussed during scientific sessions of the WVSMA Annual Meeting August 12-17, it was announced by the Program Committee.

Dr. Richard E. Kleinmann, Associate Professor of Medicine, West Virginia University School of Medicine, Charleston Division, will speak on "Approach to the Solitary Thyroid Nodule" during the first general scientific session Thursday morning, August 14.

Dr. Frederick C. Whittier of Morgantown also is scheduled to present his paper on "Geriatric Hypertension" during the first general session. He is Professor of Medicine and Chief, Section of Nephrology at WVU.

The 1986 convention will be held at the Greenbrier in White Sulphur Springs.

Other Scientific Subjects

General sessions also are scheduled Friday and Saturday mornings, with scientific subjects to include: headache, polypharmacy and the elderly, blood and blood products, nondiabetic endocrine emergencies, facts and fads in nutrition, strict diabetic control, and clinical clues in arthritis.

It was announced previously that Dr. John Coury, Jr., who will be installed as President of the American Medical Association in June, will address the first session of the House of Delegates Wednesday afternoon, August 13. Doctor Coury, of Port Huron, Michigan, is a general and pediatric surgeon.

Convention activities will begin with a 2 P. M. meeting of the WVSMA Executive Committee on Tuesday, August 12; the usual preconvention meeting of the Council at 9:30 A. M. Wednesday, and the opening session of the House at 2:45 P. M. Wednesday.

The first general session will be held immediately following 9 A. M. opening exercises on Thursday.

General scientific sessions will offer hour-for-hour Category 1 credit.

Teaching Posts in Massachusetts

Doctor Kleinmann came to West Virginia in 1981 from teaching positions held in the University of Massachusetts and Boston University.

A member of the medical staff of Charleston Area Medical Center, Doctor Kleinmann is certified in internal medicine and endocrinology.

He is a member of Phi Beta Kappa and a Fellow of the American College of Physicians.

Doctor Kleinmann was graduated from the University of Pennsylvania, and received his M. D. degree from that institution in 1973. He completed his medical internship and residency at the State University of New York Upstate Medical Center, Syracuse, and a fellowship in endocrinology at the University of Massachusetts Medical School.

At WVU he is a member of the Department of Medicine Promotion and Tenure Committee, the Resident Selection Committee (Charleston Division), and the Third-Year Student Medicine Examination Committee.

University of Missouri Positions

Doctor Whittier came to WVU in 1982 from Columbia, Missouri, where he was Associate Professor of Medicine and Pathology, University of Missouri School of Medicine, and Director, General Clinical Research Center.

He is a former member and President of the End-Stage Renal Disease Network Coordinating Council No. 9, and has served as President of the National Medical Advisory Board for the National Kidney Foundation, and as Chairman of the Foundation's Organ Donor Subcommittee.

Doctor Whittier received the Distinguished Service Award from the Kidney Foundation in 1982, and is a member of the Editorial Board of the *American Journal of Kidney Diseases.*

The nephrologist was graduated from the University of Pittsburgh, and received his M. D. degree in 1965 from Stritch School of Medicine of

Loyola, University of Chicago. He completed graduate work at the University of Iowa Hospital in Iowa City, and a nephrology fellowship there and at Vanderbilt University Hospital in Nashville, Tennessee.

He is the author or co-author of some 66 abstracts and 56 scientific articles.

Other Convention Activities

Dr. Charles E. Turner of Huntington will be inaugurated as President to succeed Dr. David Z. Morgan of Morgantown during the second and final House session Saturday afternoon.

The Annual Meeting of the Auxiliary to the State Medical Association, with Jeanny (Mrs. M. V.) Kalaycioglu of Shinnston in charge as the Auxiliary's President, again will run concurrently with the Association's convention.

Serving on the Annual Meeting Program Committee are Dr. John W. Traubert, Morgantown, Chairman; Doctor Turner; Doctor Kleinmann; and Drs. Marshall J. Carper, Charleston; Jose I. Ricard, Huntington; John A. Rizzo, Fairmont, and William N. Walker, Jr., Clarksburg.

More specific information relative to geneal session topics and speakers will be provided in upcoming issues of *The Journal.*

Aeromedical Helicopter Service To Be Launched

A statewide aeromedical HealthNet Helicopter service, with helicopters based in Charleston and Morgantown, will be launched in West Virginia in May under the auspices of HealthNet Inc. and its two member hospitals—the Charleston Area Medical Center and West Virginia University Hospital.

HealthNet Chief Executive Officer James C. Crews said having two bases of operation, one in the North and one in the South, will enable HealthNet to bring needed aeromedical services to hospitals all across the state on a 24-hour-a-day basis.

"The goal is to provide fast response by helicopter and medical crew to any West Virginia hospital in need of air transport services, 24 hours a day, seven days a week, weather permitting," Crews said.

"HealthNet offers this service to any West Virginia hospital that wishes to participate. Our intention, at least initially, is to provide primarily interhospital transport services for critically-ill or injured patients who have been stabilized at their local hospital, but who may need specialized treatment at another medical center or hospital," Crews explained.

He added that the time saved in air transportation in mountainous West Virginia is often a critical factor in medical treatment.

Service Contracted

HealthNet will not own the helicopters, but will contract with an experienced medical helicopter services firm for the aviation services component of the project. Qualified vendors have been narrowed to two, and a selection should be made soon, Crews said.

CAMC and WVUH will provide the medical crews for in-flight patient care. The crews will consist of specially-trained nurses, paramedics, respiratory therapists and, where necessary, neonatal specialists required for transport of critically-ill infants.

"West Virginia's State Police helicopter program has demonstrated the value of aeromedical services in this mountainous and largely rural state. But the State Police have only limited resources and cannot respond to many requests made of them for medical air transportation. They also have, primarily, a responsibility for law enforcement missions, which necessarily limits the availability of their helicopters for medical air transport.

"We're going to continue our close relationship with the Department of Public Safety. We will be complementing their service, and vice versa," Crews added.

"The end result will be an air transport system never before available to the hospitals of West Virginia," he concluded.

Tours of Charleston Area Medical Center's new Cancer Care Center of Southern West Virginia were conducted Friday evening, January 24, during the Mid-Winter Clinical Conference. The view above shows chemotherapy drugs being mixed in a laminar flow hood by Betty Townson, R.N., Chief Chemotherapist. Dr. Steven Jubelirer of Charleston is Medical Director of the Center, which opened January 20 at CAMC's Memorial Division.

Urologists To Meet

The West Virginia Urological Society will meet March 22-23 in Charleston at the Marriott Hotel, it was announced by Dr. Tara C. Sharma, Huntington urologist. Subjects of discussion will include flexible nephroscopy, cystoscopy and lasers in urology.

Mid-Winter Clinical Conference, 1986

A general "crowd shot" during coffee break at the 19th Mid-Winter Clinical Conference held January 24-26 in Charleston. Sponsors for the annual CME meeting are WVSMA and Marshall and West Virginia universities. Attendance this year was approximately 300 including some 250 doctors and nurses, and 50 exhibitors.

Drs. Peter C. Raich, left, Morgantown, and David P. Winchester, Evanston, Illinois, answer questions during the opening session on "Oncology" at the Mid-Winter Clinical Conference.

The other speakers for the opening oncology session were Drs. Anthony J. Bowdler, left, Huntington, and Steven J. Jubelirer, Charleston.

Enjoying a lighter moment prior to the Physicians' Session on PROs and HMOs during the Mid-Winter Conference in Charleston are the speakers, from left, James C. Crews, President, Charleston Area Medical Center; Woodford L. Burnette, President, Interactive Medical Systems, Raleigh, North Carolina; Harry S. Weeks, Jr., M. D., Wheeling, Medical Director, West Virginia Medical Institute, Inc., Charleston (also the moderator), and James W. Heaton, President, Blue Cross-Blue Shield of West Virginia, Charleston.

Michael Dunn, right, political consultant from Washington, DC, conducted the one-day AMPAC Political Education Seminar held during the Mid-Winter conference for State Auxiliary members.

Among those enjoying the Mid-Winter Conference scientific sessions were, from left, Dr. H. S. Mullens, Kenova; Maxine R. Smith, R. N., Huntington, and Dr. W. W. Mills, Kenova.

"Problems in Our Aging Population" was the title of the Saturday afternoon session. Speakers were, seated, Drs. Bruce S. Chertow, Huntington, and Patience H. White, Washington, DC; standing, right, Dr. Kenneth D. Brandt, Indianapolis, Indiana. Dr. Richard A. DeVaul, standing, left, Morgantown, was moderator.

Drs. Sam T. Bebawy, left, Huntington, and L. Blair Thrush, Charleston, were two of the speakers for the conference session on "Common Problems Encountered in Office Practice." The subjects of their talks were COPD and acute asthma, respectively. Not shown is Dr. Stanley J. Kandzari, Morgantown, who discussed urinary calculi.

A WESPAC dinner was held on Saturday evening during the Mid-Winter Conference and featured Dan Tonkovich, right, President of the West Virginia Senate, as the speaker. Enjoying an after-dinner chat above are, from left, WVSMA President David Z. Morgan, M. D., Morgantown; Carl J. Roncaglione, M. D. (with back to camera), Chairman, WVSMA Council, Charleston; Merwyn G. Scholten, WVSMA Executive Director, Charleston, and Senator Tonkovich.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

March 7-8, Charleston, Oncology Update 1986

March 15, Charleston, Ocular Complications of Diabetes: A Program for Primary Care Providers

March 21, Morgantown, Endocrinology Update '86

March 21, Charleston, Annual Newborn Day

March 22, Morgantown, Ocular Complicaions of Diabetes: A Program for Primary Care Providers

April 4-5, Morgantown, Orbital & Eyelid Anatomy

April 11-12, Charleston, Cardiac Rehabilitation

April 11-13, Canaan Valley State Park, Issues in Occupational Health

April 17 (location, Marshall University School of Medicine), Ocular Complications of Diabetes: A Program for Primary Care Providers

May 1-3, Morgantown, Orthopedic Reunion Days

May 14, Charleston, 4th Annual West Virginia Conference on Infectious Diseases

May 16-18, Oglebay Park, Wheeling, Emergent Care of the Medical Patient

May 23-24, Morgantown, Annual Meeting. WV Affiliate: Am. Diabetes Assoc.

May 23-24, Morgantown, Health Officers Seminar

June 6-7, Morgantown, WV State Society of Anesthesiologists

June 7, Charleston, Wildwater Surgical Conference: Melanoma

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — March 20, "Treatment Options for Breast Cancer," Leland J. Foshag, M. D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A.M. — March 12, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment" (speaker to be announced)

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — March 5, "Update Cancer Treatment," Anthony J. Murgo, M. D.

April 2, "Use of Gastroscope," William O. McMillan, Jr., M. D.

Lewisburg, Greenbrier Clinic Conference Room, 4-6 P.M. — March 18, "Fibrositis," Alfred Pfister, M. D.

Madison, Boone Co. Health Dept. — Conference Room, 2nd Tuesday, 7-9 P.M. — March 11, "Management of Pain in the Cancer Patient," Richard A. DeVaul, M. D.

April 8, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment," Henry Winkler, M. D.

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — March 25, Alzheimer's Disease," Albert Heck, M. D.

April 22, "Early Recognition of Diabetes Retinopathy & Latest Modalities of Treatment" (speaker to be announced)

Summersville, Summersville Memorial Hospital, 6:30-8:30 P. M. — March 3, "Update: Cancer Treatment," Peter Raich, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — March 19, "Hormonal Treatment of Metastatic Cancer," Thomas F. Hogan, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — March 26, "Management of Pain," Richard G. Emanuelson, M. D.

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — March 6, "Cancer Screening at the Primary Care Level," Richard A. Vaughan, M. D.

April 3, "Update: Cancer Treatment," Alvin L. Watne, M. D.

Ophthalmologists Plan Meeting April 27-30

Glaucoma management, radial keratotomy and intraocular lens implant surgery are among the subjects to be featured during the 39th national spring meeting of the West Virginia Academy of Ophthalmology at The Greenbrier.

Scheduled for April 27-30, the meeting carries 16 hours of ophthalmology credit, AMA Category 1.

Fees for the meeting are $100 for WV Academy members, $225 for nonmembers, and $450 for exhibitors. Complete registration information is available by contacting Samuel A. Strickland, M. D., Secretary-Treasurer, West Virginia Academy of Ophthalmology, P. O. Box 3107, Charleston, WV 25311. Telephone (304) 345-4136.

Among AAFP Meet Topics

Somataform Disorders, Lipids

James M. Turnbull, M. D.

Manuel Tzagournis, M. D.

Doctors from East Tennessee State University and Ohio State University will be among some 14 speakers for the 34th annual scientific assembly of the West Virginia Chapter, American Academy of Family Physicians, April 18-20, in Charleston.

The meeting will be held at the Holiday Inn Charleston House, with scientific sessions beginning Friday morning, April 18, and ending at 12:30 P. M. Sunday.

Doctor Turnbill, Professor and Chairman, Quillen-Dishner College of Medicine, Department of Psychiatry at East Tennessee State (Johnson City), will speak on "The Importance of Somataform Disorders to the Family Physician" Friday afternoon.

"Lipids — Does it Really Pay to Lower LDLs and Raise HDLs?" will be the title of Doctor Tzagournis' paper Saturday morning. He is Professor of Medicine, Division of Endocrinology and Metabolism at Ohio State.

As announced in the February issue of *The Journal*, other subjects to be discussed will include: side effects with antibiotics; cost-effective use of cephalosporins — DRGs; neonatal resuscitation; rheumatoid arthritis; hormonal replacement for menopausal women; stress and the heart; cardiac rehabilitation; thrombotic disease; essential hypertension; hospital privileges / family practice departments; and medical malpractice (mock trial presentation).

Malpractice Mock Trial

The "Cast of Characters" for the Sunday morning medical malpractice mock trial will be: Judge — The Honorable A. Andrew McQueen, Chief Judge of the 13th Judicial Circuit, Kanawha County; Physician's Defense Counsel — John S. Haight, Esq., Partner, Kay, Casto and Chaney, Charleston; Plaintiff's Counsel — George A. Daugherty, Esq., Partner, Daugherty and Tantlinger, Charleston: Defendant Physician — E. Frederick Bockstahler, Esq., Vice President for Legal Services, Charleston Area Medical Center; Court Reporter — Wendy Nekoranec, R.N., Staff Development Instructor, CAMC, and Court Bailiff — Tim Kemper, CAMC Security Officer.

Preliminary functions on Thursday, April 17, will include a golf tournament at Berry Hills Country Club, board meeting of the Family Medicine Foundation of West Virginia, and board meeting of the West Virginia Chapter, AAFP.

Also scheduled are exhibit booth visitations, a luncheon meeting of the AAFP House of Delegates Friday, cruise up the Kanawha River on the P. A. Denny Sternwheeler Friday evening, and banquet Saturday evening.

For registration and additional information, call (304) 776-1178.

New Flow Cytometer At WVU Hospital

Cancer in its earliest stages can be detected by a new medical instrument installed by West Virginia University Hospitals, Inc.

The flow cytometer, installed by University Hospitals' Clinical Laboratories in the Department of Pathology, uses a computerized laser system to detect, identify and separate cells in blood and other body fluids. It is so sensitive that one cancer cell in 100,000 normal cells can be detected.

(Continued on Next Page)

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 4106, Charleston 25364. We'll be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

The Premature Labor Handbook, by Patricia Anne Robertson, M. D.; and Peggy Henning Berlin, Ph.D. $16.95. Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10167. 1986.

AIDS in the Mind of America, by Dennis Altman. $16.95. Doubleday & Company, Inc., 245 Park Avenue, New York, New York 10167. 1986.

Cardiac Arrest (A True Account of Stolen Lives), by Sarah Spinks. $17.95. Doubleday & Company, Inc., 245 Park Avenue, New York 10167. 1986.

(Continued from Page 59)

"We believe the flow cytometer will be of great benefit to patient care," said Dr. Nathaniel F. Rodman, Chairman of the Department of Pathology. "Cancer and cancer recurrences can be detected earlier, thus permitting more effective treatment."

In addition to cancer cell detection, the flow cytometer will be helpful in monitoring transplant patients for possible rejection and in diagnosing immunological diseases.

More than 5,000 cells per second can be analyzed or separated by the flow cytometer.

Flow cytometer services are available for physicians and researchers. A series of lectures on the applications of flow cytometry is being planned. Physicians who want more information or to submit samples for testing should contact pathology at 304/293-2241 or 304/293-2214.

State Medical Properties Report

(*Editor's Note*: Following is the annual report for the West Virginia State Medical Properties, Inc., as submitted by L. Walter Fix, M. D., Martinsburg, Treasurer, for publication in *The Journal*.)

The following audited report of the West Virginia State Medical Properties Inc. is submitted. It is an annual report beginning 22 January 1985 when I assumed responsibility for all funds. Prior accounting is being done by Ernst and Whinney, Charleston, and should be submitted via West Virginia State Medical Association as fiscal report to 1 July 1985. Fiscal report 1 July 1986 will be submitted by me in the August issue of *The Journal*.

Annual Statement

Account opened 22 January 1985	Deposit	$ 5,400.00
	Income	101,122.32
	TOTAL:	$106,522.32
	Expenditures	$ 92,794.88
	Bank Balance	13,727.44
	TOTAL:	$106,522.32
Income accounting	Interest	$ 1,230.53
	Rent	43,200.00
	Transfer from CNB	61,841.79
	Past President Gift	250.00
	TOTAL:	$106,522.32
Expenditures	Taxes	$ 1,540.90
	CNB overdraft adjustment (see Ernst & Whinney)	
	Note payments (Interest $53,756.34 Principal $8,160.59)	61,916.93
	Breakfast and travel for Board)	139.73
	Insurance	669.00
	Carlton Inc. (final payment)	10,826.00
	TOTAL:	$ 92,794.88

Bank Note	Original	$600,000.00
	1985 Principal	8,160.59
	Balance	$591,839.41

L. Walter Fix, M. D., Treasurer

Audited by: William R. Agee, Ph.D., Independent Auditor

Medical Meetings

March 7—Am. School Health Assoc., Baltimore.

March 5-9—Am. Medical Student Assoc., Washington, DC.

March 9-13—Am. College of Cardiology, Atlanta.

March 13-16—Physicians for Social Responsibility, Philadelphia.

March 15-18—Southeastern Surgical Congress, Louisville, KY.

March 22-23 — WV Urological Society, Charleston.

March 22-26—Am. Academy of Allergy & Immunology, New Orleans.

April 3-6—Am. College of Preventive Medicine, Atlanta.

April 10-13—Am. College of Physicians, San Francisco.

April 13-17—Am. Assoc. of Neurological Surgeons, Denver.

April 13-18—Am. Assoc. of Immunologists, St. Louis.

April 14-18—Am. Roentgen Ray Society, Washington, DC.

April 18-20—WV Chapter, AAFP, Charleston.

April 27-30—WV Academy of Ophthalmology, White Sulphur Springs.

April 27-May 3—Am. Academy of Neurology, New Orleans.

April 30-May 2—Christian Medical Society, Dallas.

May 4-6—Am. Society of Clinical Oncology. Los Angeles.

May 5-8—Am. College of Obstetricians & Gynecologists, New Orleans.

May 7-9—Am. Society for Artificial Internal Organs, Anaheim, CA.

May 10-16—Am. Psychiatric Assoc., Washington, DC.

May 11-14—Am. Thoracic Society, Kansas City, MO.

May 11-16—Am. Society of Colon & Rectal Surgeons, Houston.

May 17-23—Am. Gastoenterological Assoc., San Francisco.

May 29-30—Am. Society of Transplant Surgeons, Chicago.

May 29-June 1—VA Society of Ophthalmology, Norfolk.

Aug. 12-17—119th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

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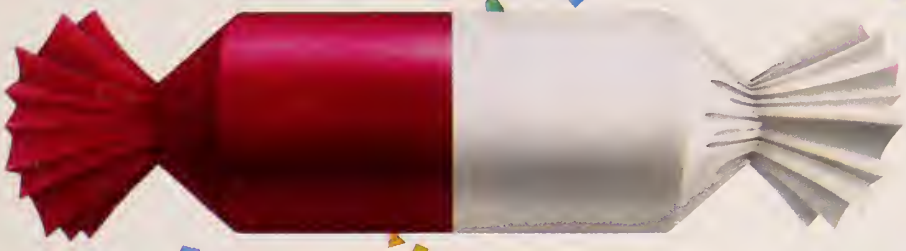

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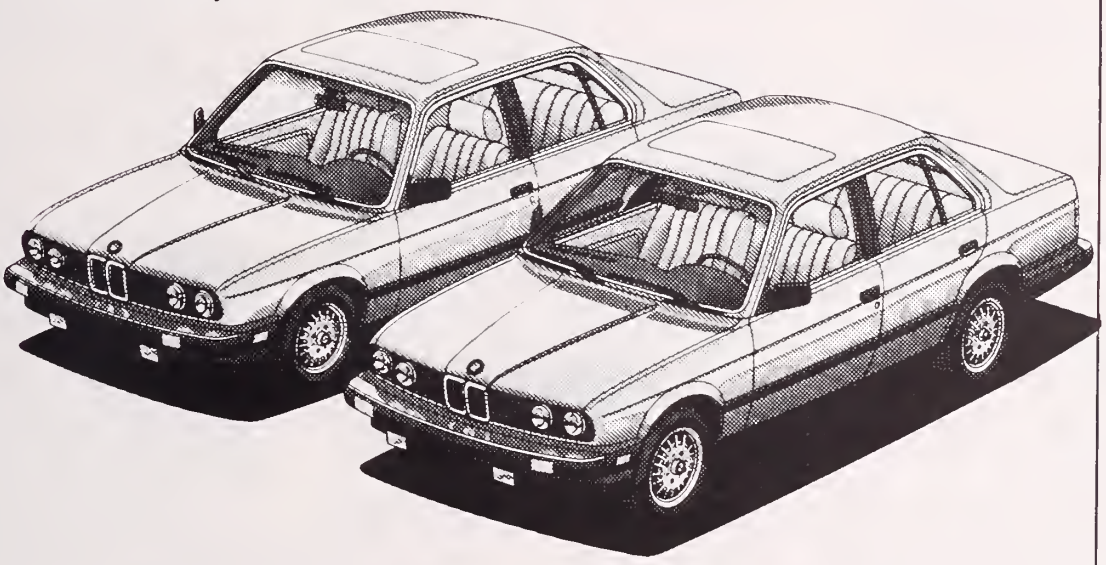

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WVU Medical Center News

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

New MR System Extends Diagnostic Services

The WVU Medical Corporation in cooperation with the WVU School of Medicine and its Department of Radiology began installation in January of a powerful magnetic resonance (MR) system which will enable physicians to see inside the human body in ways never before possible.

The system, 12 by 60 feet and weighing several tons, is being installed adjacent to the Medical Center at 880 Chestnut Ridge Road.

The Signa superconducting MR system, manufactured by General Elecric Corp., is capable of providing images so detailed they approach the fine-line anatomical drawings found in medical textbooks. Another advantage of the system is the potential for providing a series of excellent images in shorter times.

Because the system is considered non-invasive, it offers fewer risks than some diagnostic alternatives including tomographic or CAT scanners. In some cases it may reduce the need for lengthy hospital stays, thereby holding down health care costs.

"Addition of this new imaging modality complements and will greatly extend the range of diagnostic services now available to the region through our Department of Radiology," said O. F. Gabriele, M. D., Professor and Chairman of Radiology.

Physicians may contact the MRI Center directly or may utilize the MARS communications system recently installed by the WVU School of Medicine to access MRI information or schedule patients.

WVU Heart Repair Method Described In Article

A cardiac surgery technique developed at WVU Medical Center allows surgeons to correct a rare congenital heart defect without the complications associated with other methods of repair.

The defect involves veins that incorrectly bring blood from the lungs to the right side of the heart rather than to the left where it should go to be pumped into general circulation.

The basic abnormality isn't uncommon. It can ordinarily be corrected by simply redirecting the abnormal venous return from the lungs to the proper chamber by a patch internally applied to the defect in the heart.

However, repair is much more difficult when the abnormal veins enter high into the major vein (superior vena cava), which drains into the right atrium or venous collecting chamber of the heart. It is this situation that the procedure is designed to correct.

The technique developed at WVU for these rarer cases and used to date in 20 patients was described in a recent issue of *Annals of Thoracic Surgery*. The article was written by Drs. Herbert E. Warden, Robert A. Gustafson, William A. Neal and Thomas J. Tarnay.

". . . This technique has achieved total correction of these congenital defects with marked reduction in the undesirable postoperative sequelae often associated with the other methods of repair," they wrote.

In an interview, Doctor Warden said the basic idea evolved from a suggestion of F. John Lewis, a former colleague of his at the University of Minnesota, but the technique was never used until 1967 at WVU. "Ours was the first clinical application of this principle," Doctor Warden said.

He said the anomaly "formerly has been a frustrating problem to correct without a lot of postoperative complications." It is usually associated with a hole in the partition dividing the two upper chambers of the heart.

WVU Doctor Named To Tourette Committee

Douglas J. Dove, M. D., a pediatric neurologist, has been named to the national medical committee of the Tourette Syndrome Association.

The committee advises the national office on policy concerning issues of patient care in such areas as medicine, genetic counseling, and behavioral aspects of the ailment.

Tourette syndrome usually begins between the age of 2 and 16 and is a central nervous system disorder characterized by tic-like involuntary muscle movements, uncontrollable vocal sounds and inappropriate words. Although the cause is unknown and no cure is available, symptoms often can be suppressed with special medication, making early diagnosis particularly important to prevent psychological damage to the young patient.

Doctor Dove, an Associate Professor in the departments of Pediatrics and Neurology since 1982, came to WVU from the Southern Illinois University School of Medicine faculty.

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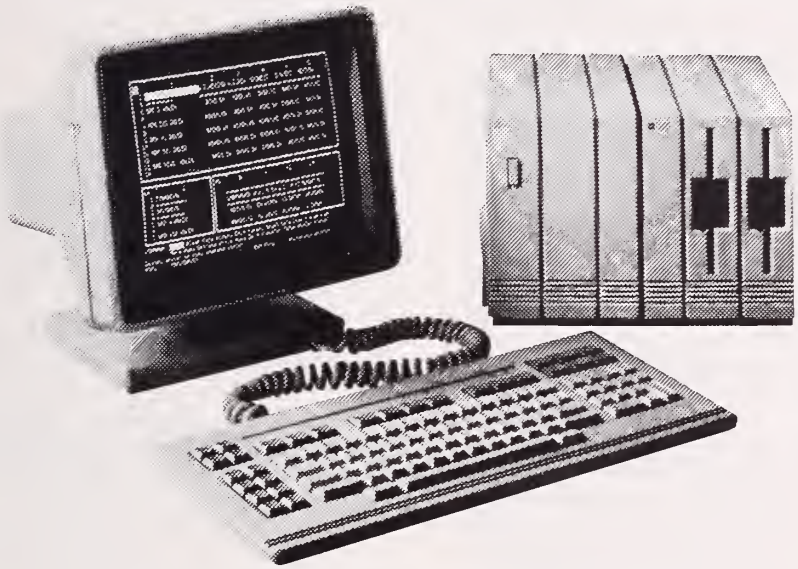

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Obituaries

WILLIAM L. COOKE, M. D.

Dr. William L. Cooke of Charleston, retired public health physician, died on January 24 at his home. He was 79.

Doctor Cooke was a member of the State Medical Association's Council for two terms (1956-60), and served on the WVSMA Publication Committee as Associate Editor of *The West Virginia Medical Journal* from 1959 through 1971.

He was Past President of the Kanawha Medical Society, National Tuberculosis Association, Anti-Tuberculosis League of Kanawha County, West Virginia Tuberculosis Association and Thoracic Society, and Potomac Chapter of the American Chapter of Chest Physicians.

A trustee of the former Charleston General Hospital, he was a retired Army lieutenant colonel of World War II.

Doctor Cooke was born in Newport News, Virginia, graduated from San Diego State College, and received his M. D. degree in 1929 from the Medical College of Virginia.

He interned at Charleston General Hospital and took his residency there and at Rutherford Sanitarium in Beckley.

Survivors include the wife, Sally Ann Cooke; two sons, William L. Cooke, Jr., of Charleston and James B. Cooke of Baltimore; a daughter, Sally Ann Meek of Norfolk, Virginia, and a sister, Mrs. Charles A. Saunders, Jr., of Richmond, Virginia.

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Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor. West Virginia Medical Journal, Box 4106, Charleston, W. Va. 25364.

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County Societies

CABELL

Dr. Aaron Marcus of Ithaca, New York, was the invited speaker for the meeting of the Cabell County Medical Society January 9 in Huntington at the Holiday Inn Gateway, East.

Doctor Marcus, Professor of Medicine, Cornell University Medical College, spoke on "Vascular and Inflammatory Diseases."

He summarized the physiological actions of platelets in the hematostatic process and the more recently acquired knowledge of the action of breakdown products of arachidonic acid both in thrombosis and in mediation of the inflammatory reaction.

Dr. Tara Sharma described plans for formation of a joint panel of physicians and lawyers in Huntington to provide an opinion on the legitimacy of a malpractice claim.—Mabel M. Stevenson, M. D., Secretary.

McDOWELL

The McDowell County Medical Society met January 8 at Stevens Clinic Hospital in Welch.

Dr. Vernon Magnus provided an interesting slide presentation of his trip to Haiti and medical experiences while there. — Barbara A. Fenton, M. D., Secretary.

WESTERN

The Western Medical Society met on January 14 in Ripley at Jackson General Hospital.

The guest speaker was Dr. Frank L. Schwartz, Parkersburg endocrinologist, who gave a comprehensive talk on diabetes — type, etiology, pathology and treatment.

The Society decided that funds collected from doctors for the flood relief fund should go to the Salvation Army.

Dr. Ali H. Morad gave a summary of recent legislation concerning tort reform.—Ali H. Morad, M. D., Secretary.

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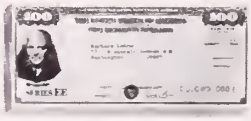

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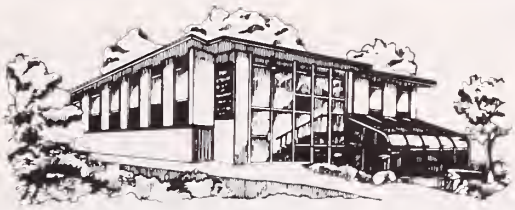

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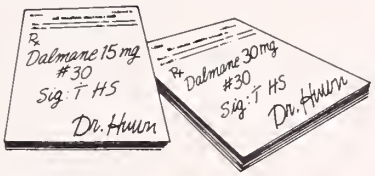

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Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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West Virginia Medical JOURNAL

April 1986 West Virginia State Medical Association Volume 82 No. 4

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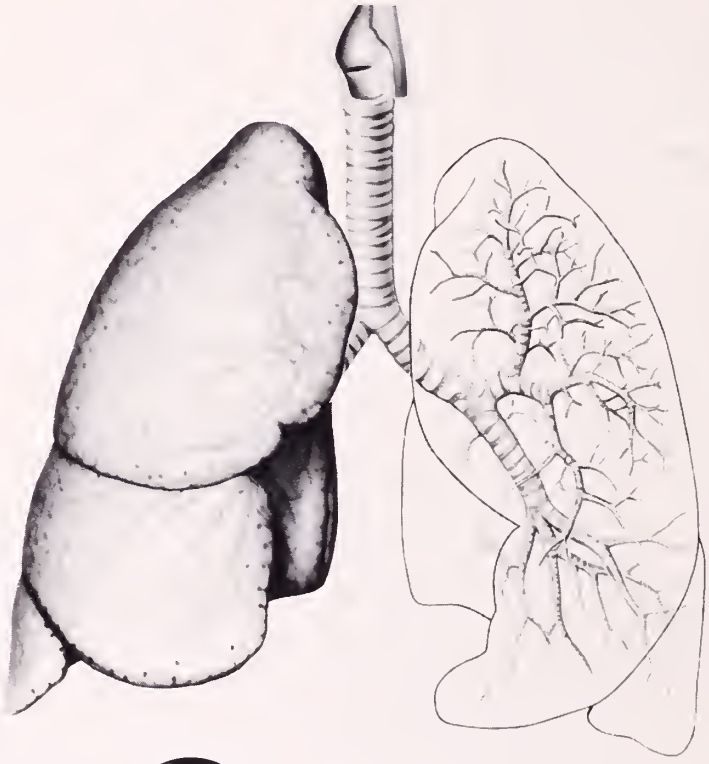

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H. influenzae, H. influenzae, S. pneumoniae, S. pyogenes
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Brief Summary: Consult the package literature for prescribing information.

Indications and Usage: Ceclor® (cefaclor, Lilly) is indicated in the treatment of the following infections when caused by susceptible strains of the designated microorganisms:

Lower respiratory infections, including pneumonia caused by *Streptococcus pneumoniae (Diplococcus pneumoniae), Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci).

Appropriate culture and susceptibility studies should be performed to determine susceptibility of the causative organism to Ceclor.

Contraindication: Ceclor is contraindicated in patients with known allergy to the cephalosporin group of antibiotics.

Warnings: IN PENICILLIN-SENSITIVE PATIENTS, CEPHALOSPORIN ANTIBIOTICS SHOULD BE ADMINISTERED CAUTIOUSLY. THERE IS CLINICAL AND LABORATORY EVIDENCE OF PARTIAL CROSS-ALLERGENICITY OF THE PENICILLINS AND THE CEPHALOSPORINS, AND THERE ARE INSTANCES IN WHICH PATIENTS HAVE HAD REACTIONS, INCLUDING ANAPHYLAXIS, TO BOTH DRUG CLASSES.

Antibiotics, including Ceclor, should be administered cautiously to any patient who has demonstrated some form of allergy, particularly to drugs.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics (including macrolides, semisynthetic penicillins, and cephalosporins), therefore, it is important to consider its diagnosis in patients who develop diarrhea in association with the use of antibiotics. Such colitis may range in severity from mild to life-threatening.

Treatment with broad-spectrum antibiotics alters the normal flora of the colon and may permit overgrowth of clostridia. Studies indicate that a toxin produced by *Clostridium difficile* is one primary cause of antibiotic-associated colitis.

Mild cases of pseudomembranous colitis usually respond to drug discontinuance alone. In moderate to severe cases, management should include sigmoidoscopy, appropriate bacteriologic studies, and fluid, electrolyte, and protein supplementation. When the colitis does not improve after the drug has been discontinued, or when it is severe, oral vancomycin is the drug of choice for antibiotic-associated pseudomembranous colitis produced by *C. difficile*. Other causes of colitis should be ruled out.

Precautions: *General Precautions* — If an allergic reaction to Ceclor® (cefaclor, Lilly) occurs, the drug should be discontinued and, if necessary, the patient should be treated with appropriate agents, e.g., pressor amines, antihistamines, or corticosteroids.

Prolonged use of Ceclor may result in the overgrowth of nonsusceptible organisms. Careful observation of the patient is essential. If superinfection occurs during therapy, appropriate measures should be taken.

Positive direct Coombs' tests have been reported during treatment with the cephalosporin antibiotics. In hematologic studies or in transfusion cross-matching procedures when antiglobulin tests are performed on the minor side or in Coombs' testing of newborns whose mothers have received cephalosporin antibiotics before parturition, it should be recognized that a positive Coombs' test may be due to the drug.

Ceclor should be administered with caution in the presence of markedly impaired renal function. Under such conditions, careful clinical observation and laboratory studies should be made because safe dosage may be lower than that usually recommended.

As a result of administration of Ceclor, a false-positive reaction for glucose in the urine may occur. This has been observed with Benedict's and Fehling's solutions and also with Clinitest® tablets but not with Tes-Tape® (Glucose Enzymatic Test Strip, USP, Lilly).

Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.

Usage in Pregnancy — Pregnancy Category B — Reproduction studies have been performed in mice and rats at doses up to 12 times the human dose and in ferrets given three times the maximum human dose and have revealed no evidence of impaired fertility or harm to the fetus due to Ceclor® (cefaclor, Lilly). There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers — Small amounts of Ceclor have been detected in mother's milk following administration of single 500-mg doses. Average levels were 0.18, 0.20, 0.21, and 0.16 mcg/ml at two, three, four, and five hours respectively. Trace amounts were detected at one hour. The effect on nursing infants is not known. Caution should be exercised when Ceclor is administered to a nursing woman.

Usage in Children — Safety and effectiveness of this product for use in infants less than one month of age have not been established.

Adverse Reactions: Adverse effects considered related to therapy with Ceclor are uncommon and are listed below.

Gastrointestinal: Symptoms occur in about 2.5 percent of patients and include diarrhea (1 in 70).

Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment. Nausea and vomiting have been reported rarely.

Hypersensitivity: reactions have been reported in about 1.5 percent of patients and include morbiliform eruptions (1 in 100). Pruritus, urticaria, and positive Coombs' tests each occur in less than 1 in 200 patients. Cases of serum-sickness-like reactions (erythema multiforme or the above skin manifestations accompanied by arthritis/arthralgia and, frequently, fever) have been reported. These reactions are apparently due to hypersensitivity and have usually occurred during or following a second course of therapy with Ceclor. Such reactions have been reported more frequently in children than in adults. Signs and symptoms usually occur a few days after initiation of therapy and subside within a few days after cessation of therapy. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.

Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.

Other effects considered related to therapy included eosinophilia (1 in 50 patients) and genital pruritus or vaginitis (less than 1 in 100 patients).

Causal Relationship Uncertain — Transitory abnormalities in clinical laboratory test results have been reported. Although they were of uncertain etiology, they are listed below to serve as alerting information for the physician.

Hepatic — Slight elevations in SGOT, SGPT, or alkaline phosphatase values (1 in 40).

Hematopoietic — Transient fluctuations in leukocyte count predominantly lymphocytosis occurring in infants and young children (1 in 40).

Renal — Slight elevations in BUN or serum creatinine (less than 1 in 500) or abnormal urinalysis (less than 1 in 200).

[0617B2R1]

Note: Ceclor® (cefaclor, Lilly) is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

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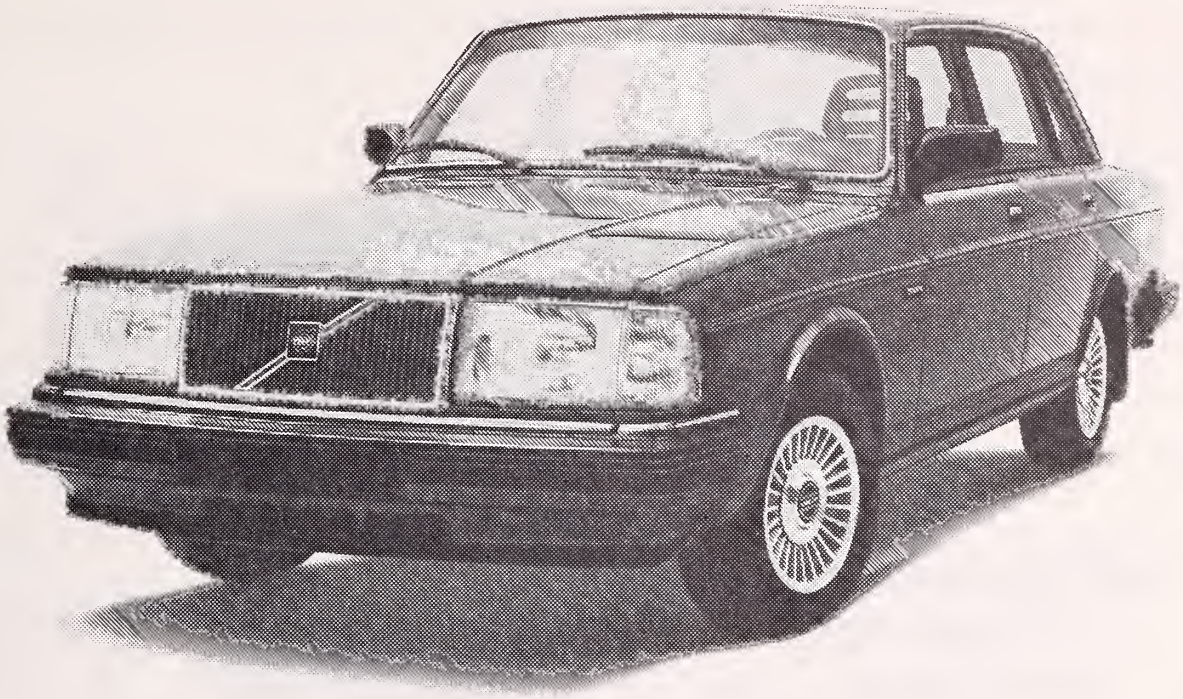

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North Fork of Hughes River flows through North Bend State Park. Photo courtesy of *Wonderful West Virginia* Magazine. Arnout Hyde, Jr., photographer.

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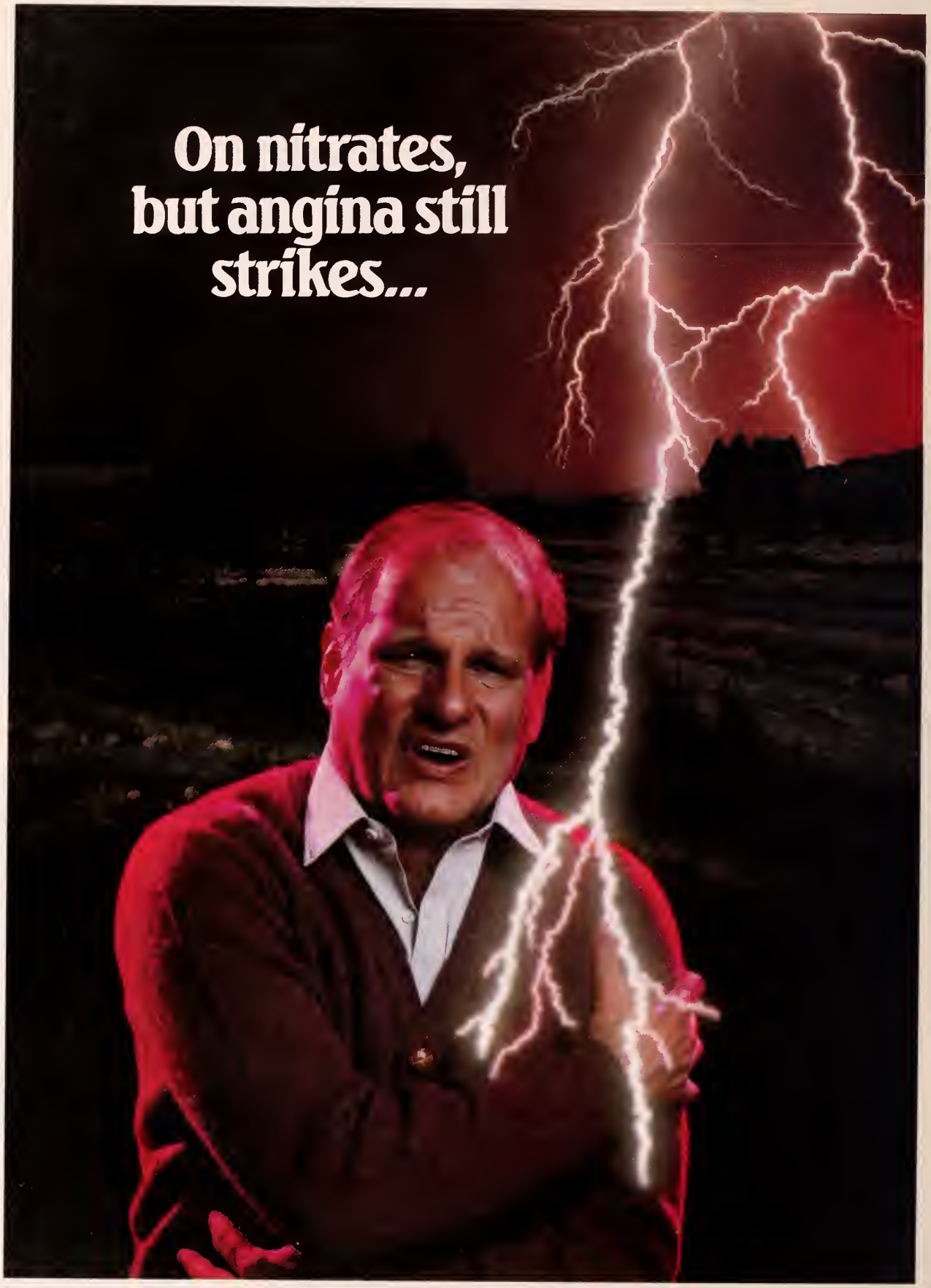
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Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. 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One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C*: There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings.*) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. Revised August, 1984. 2385

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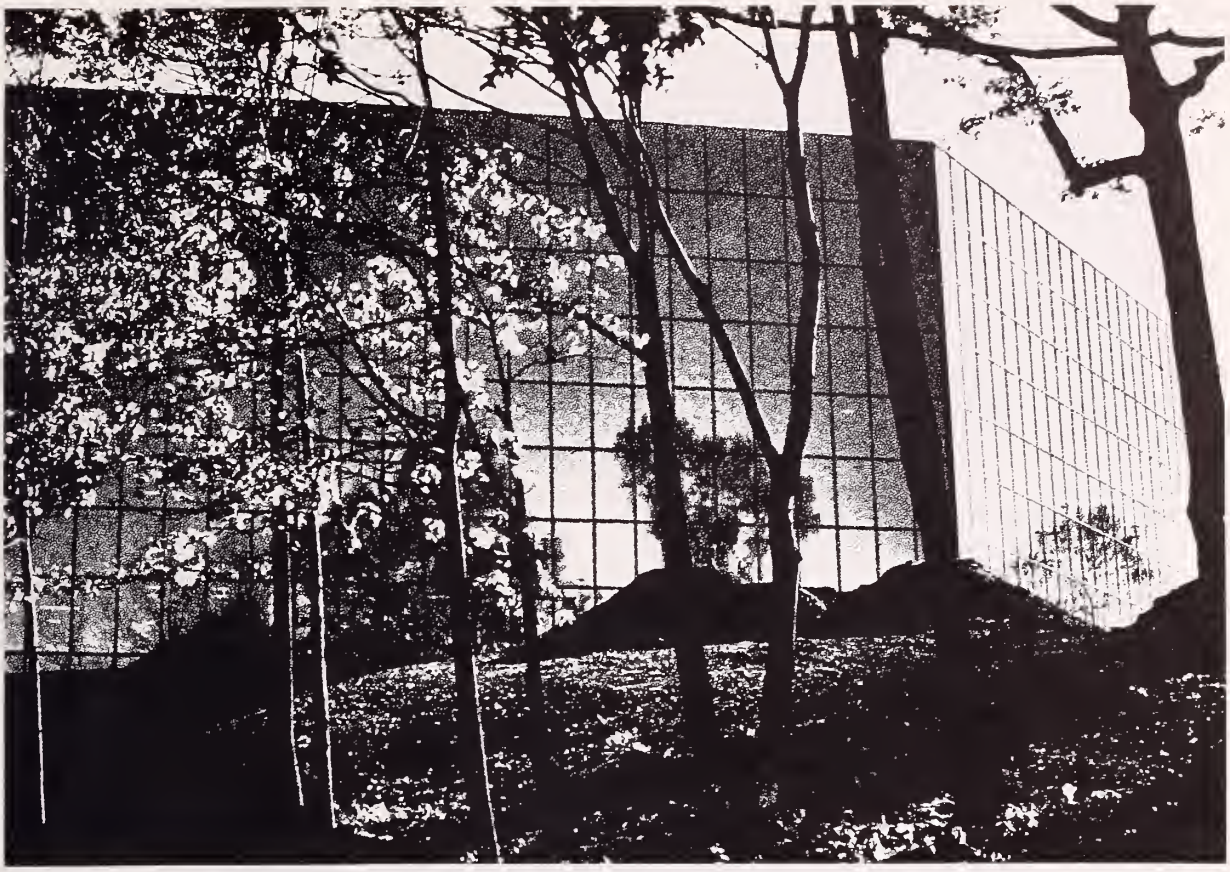

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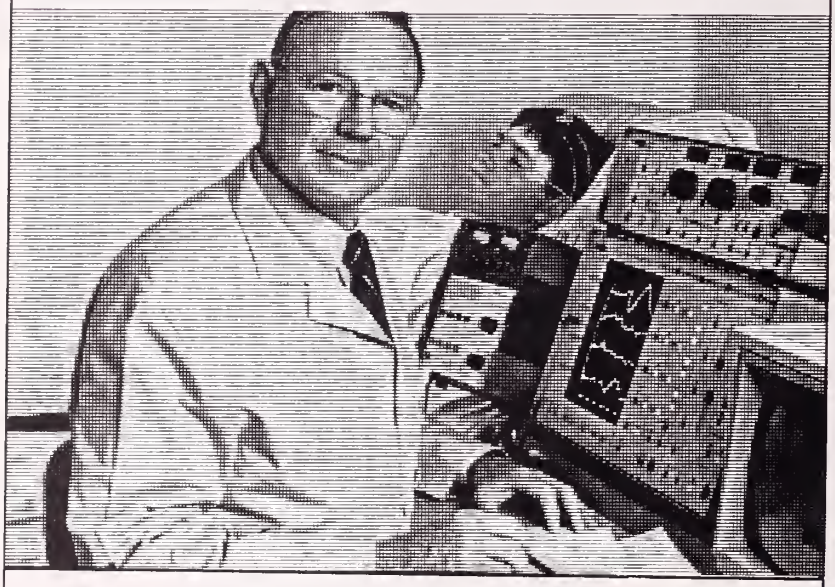

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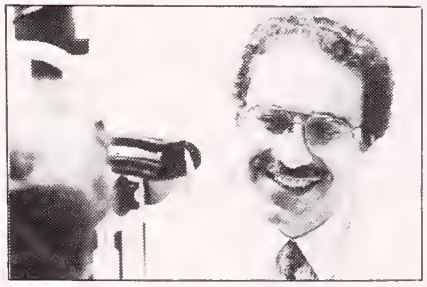

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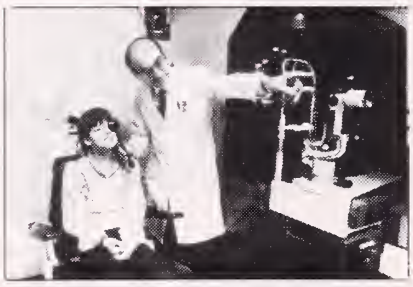

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WVSMA Position Paper

Toward Improved Medical Care For West Virginians

DAVID Z. MORGAN, M. D.
President, West Virginia State Medical Association

(Editor's Note: This position paper was prepared by Doctor Morgan for the information of the 1986 West Virginia Legislature but the contents still reflect to a large degree the ongoing WVSMA programs and goals which are of vital concern to all members.)

For over two decades, increasing the number of health care practitioners to meet the needs of its citizens was a concern of the federal government as well as the West Virginia Legislature.

Predictably, as the health care industry shifted to become a big-volume provider of new technical advances to the public, new concerns have become evident: (1) The escalation of costs have resulted in major containment regulatory efforts at the federal level (e.g., Diagnostic Related Group reimbursement of hospitals) and at the state level (e.g., Health Care Cost Review Authority); (2) Some feel that many physicians are no longer as caring or compassionate and that the delivery of medical care is done in a business-like fashion, and (3) There has been a clamor for the profession to increase the monitoring of the quality of care by physicians and to remedy continuing inept care, if possible, or to discipline the physician when needed.

The West Virginia State Medical Association (WVSMA) shares in these concerns. The following represents a brief summary of the way these are being addressed at various levels.

It first is necessary to state that the WVSMA is a voluntary association of physicians which upholds the highest ideals of the practice of medicine. One need not belong to the WVSMA to practice medicine in West Virginia (about 70 per cent of the practicing physicians in West Virginia do belong).

All decisions relating to licensure or discipline of physicians are vested in the West Virginia Board of Medicine through the Medical Practice Act of the State of West Virginia.

Medical Licensing Board

We support measures which will strengthen the Board's investigative ability as well as changes which will tighten the reporting requirements.

While we agree entirely that the public should be made aware of ultimate disciplinary action against a physician, we support the right of an accused doctor to have a thorough, fair and prompt, due-process hearing out of the media's glare.

Risk-Control Seminars

These seminars, jointly sponsored by the CNA Insurance Company and the WVSMA, have been and are continuing to be held throughout West Virginia. The major thrust of these seminars is to encourage physicians to be more caring in their interaction with patients, to document more thoroughly their work on the medical chart and to exercise greater care in those areas that place them at greatest risk, for example, the granting of informed consent before an operative procedure.

Hospital Risk-Control Measures

We support the growing efforts of hospitals to institute in-house measures to control the quality of medical practice. Many require full participation as a condition for staff membership. Undertaken are such measures as the prompt investigation and correction of any incident that might place a patient in jeopardy of injury and all-out efforts to improve communication between staff and patients.

These measures complement the already established measures which are required or strongly suggested by the Joint Committee on Hospital Accreditation (JCHA). These include the tissue committee, which reviews the necessity for operative procedures in the hospital; record committee, which reviews the completeness and adequacy of records; quality assurance committee, which reviews the adequacy of care of specific patients; pharmacy committee, which is concerned with the cost, efficiency and safety of drugs used in the hospital, etc.

Peer Review Organization

The PRO in West Virginia is the West Virginia Medical Institute. The Board is primarily made up of WVSMA members. It is charged with reviewing the care received by Medicare and Medicaid patients. In the early years of this organization the emphasis was primarily on cost containment. Initially, fee-for-service payment for medical patients was met by control of the number of days of hospitalization. Under the DRG system, the WVMI is required to question the necessity of hospitalization.

In 1986, quality of care will again gain significance because of national

concern over such things as the premature discharge of patients under the DRG system.

Under the peer review system providers can be sanctioned including removal of ability to receive payment for care of Medicare or Medicaid patients. More stringent sanctions include fine or even imprisonment for fraudulent activities. The number of sanctions against physicians and hospitals recently has increased.

Impaired Physician Committee

The WVSMA is placing new emphasis on education, offering intervention and the identification of treatment resources for physicians with alcohol or drug problems.

It is recognized that this problem can be dealt with more effectively and the potential for harm to patients be lessened by identifying the impaired physician as early as possible.

We will be establishing a statewide network of physicians and spouses who will be concerned and knowledgeable in this area.

It may be necessary to seek some legislative assistance in the future. For example, if a good rehabilitation protocol can be designed, it might be appropriate for the law to place an impaired physician under the jurisdiction of the Impaired Physician Committee, initiating disciplinary action under the Medical Licensing Board only if the individual refuses rehabilitation or backslides after entering treatment.

Professional Evaluation Committee

The WVSMA's Professional Evaluation Committee assists its members and its endorsed carrier in the review of all medical malpractice suits against physicians in West Virginia.

The insurance carriers in West Virginia may and do refuse to continue to insure physicians if they demonstrate deficiencies of care through repeated valid suits or through severe negligence in a single suit.

If the suits are of a trivial nature, the Committee will recommend continuance of its member.

This trend will undoubtedly continue as the carrier's projected losses exceed premium income.

Physician Medical Care Network of West Virginia, Inc.

West Virginia has established the first statewide preferred provider organization (PPO) in the nation.

This organization of West Virginia physicians will be dedicated to cost containment in the care of patients as well as high quality care.

The provision of discounted medicad services will be accompanied by pre-hospital certification, review of quality of hospital care and the post-hospital profiling of an individual physician's practice.

Abuses will result in provider removal from the preferred provider organization.

Tracking the Errant Physician

Among the concerns is the fact that the physician who has been disciplined by his/her local hospital board of trustees or who is threatened by such discipline, simply moves to another community in the same state or to another state.

The enhanced reporting activities to the Medical Licensing Board requested in legislation pending this year will be a great help in this regard.

The Federation of Licensure Examining Boards (FLEX), a national organization based in Fort Worth, Texas, has recently initiated a procedure to gather information from state boards and report this information to the licensing board of the state to which the physician moved. The ultimate decision, of course, remains with the individual state boards, but it is clear that many states will refuse to license a physician who has been faced with major disciplinary action in another state.

Summary

The WVSMA supports a broad range of measures to improve the quality and safety of medical care in West Virginia.

This is not to say that we have all the answers. We don't.

We do not as yet have an adequate solution how best to assist our members who are deemed to have serious deficiencies in the adequacy of their patient care. Short-term continuing medical education courses have not been sufficient. We are considering encouraging a plan of longer-term (six months plus) voluntary retraining for those for whom it would be feasible.

We do not yet know how to solve the uneveness of medical care that exists between many communities in West Virginia. The differences between rural and urban settings are to be expected. There are, however, sometimes striking differences, for example, in care in similar rural areas. These can sometimes be explained on the basis of medical manpower needs, sometimes not.

We stand ready within the limits of our ability and resources to help any community approach their local medical problems.

The WVSMA has as its primary concern the delivery of high-quality medical care to all West Virginians.

AIDS And Its Transmission

Questions And Answers For The Journal

ROY C. BARON, M. D., M.P.H.
Medical Epidemiologist, West Virginia Department of Health

(Editor's Note: Doctor Baron was asked by *The Journal* to respond to frequently asked questions regarding AIDS and its transmission including reference to the status of the disease in West Virginia.)

Introduction

Acquired Immunodeficiency Syndrome (AIDS) was first recognized in 1981. It is characterized by: 1) infection with opportunistic protozoan, fungal, or viral pathogens, and/or 2) rare malignancies, such as Kaposi's sarcoma or various lymphomas in people who have an underlying cellular immune deficiency without evidence of a predisposing condition. It is now known that the immune deficiency is caused by a transmissible agent, the Human T-lymphotropic (HTLV-III) virus, which destroys the T 4 lymphocytes (T-helper cells).

How prevalent is AIDS in the United States?

As of December 30, 1985, the Centers for Disease Control has received reports of 15,948 cases of AIDS known to have occurred since January, 1979. The number of cases has increased each year (12 in 1979, 47 in 1980, 260 in 1981, 992 in 1982, 2,717 in 1983, and 5,341 in 1984). The current figures for 1985 are only provisional but the number of case reports received so far (6,571) indicates that the trend is continuing.

How is the AIDS (HTLV-III) virus transmitted and what groups of people are at risk of acquiring the disease?

HTLV-III virus has usually been isolated from blood and semen. While it also has been found in saliva and tears, these fluids represent very uncommon sources of virus isolation from patients with AIDS. Among adults and adolescents (more than 13 years of age), HTLV-III virus is transmitted primarily through sexual contact (homosexual or heterosexual), and through parenteral exposure to infected blood by contaminated needles associated with illicit drug use or by blood products (whole blood, packed red cells, platelets, plasma, or plasma concentrate). It is highly unlikely that saliva and tears play a role in transmission.

Of the adult and adolescent AIDS cases, 14,693 are male and 1,026 are female. Homosexual or bisexual men, who account for 73 per cent of these cases, and users of illegal intravenous drugs, who account for 17 per cent of these cases, constitute the most prominent risk groups. Hemophiliacs and other blood or blood product recipients account for two per cent of the cases while persons who are known to have had heterosexual contact with an AIDS patient or with a member of an AIDS risk group account for one per cent of the cases. Although six per cent of the adult/adolescent cases have not been associated with one of these risk groups, 40 per cent of these unclassified cases were born in countries where AIDS is more commonly associated with heterosexual transmission, and many others have histories of contact with prostitutes.

What is the risk for children under 13 years of age?

Only 229 cases, 125 in males and 104 in females, have been reported among children under 13. Seventy-five per cent of the children with AIDS reported to CDC have a parent with AIDS or who is a member of a group at risk for acquiring the HTLV-III virus. The majority of these children acquired the virus from their infected mothers in the prenatal period. In utero and intrapartum

transmission are most likely. Children have also become infected through transfusion of blood or blood products that contain the virus. Five per cent of the pediatric cases are hemophiliacs and 15 per cent were recipients of other blood or blood products. For five per cent, the investigations are incomplete.

Is HTLV-III infection spread through casual contact or by insects?

Accumulated evidence strongly suggests that HTLV-III infection is *not* spread through casual contact with an infected individual such as in family settings, schools or other groups living or working together. Furthermore, blood-sucking insects are not believed to be involved in transmission of the disease.

How many AIDS cases have been reported in West Virginia, and what risk groups do they represent?

Twelve cases of AIDS, 11 adults and one pediatric, have been reported in West Virginia as of December 31, 1985. The pediatric case is presumed to have resulted from perinatal transmission from an infected mother. Of the 11 adults, five were homosexual or bisexual males, two were hemophiliacs, three had received transfusions with blood or a blood product, and one case's risk remains unclassified.

Aside from AIDS, are there other manifestations of HTLV-III virus infections?

Our ability to identify persons infected with the HTLV-III virus has expanded our knowledge of its clinical manifestations. AIDS, as defined for reporting purposes, only represents the most severe manifestations. As with other viral infections, infected persons may manifest no signs or symptoms, or they may have an intermediate condition known as AIDS-Related Complex (ARC).

Can you describe ARC?

ARC includes signs or symptoms such as lymphadenopathy, weight loss, fever, chronic diarrhea, anemia, thrombocytopenia, or early evidence of opportunistic infection, such as oral candidiasis, of greater than two weeks' duration with no other underlying condition.

Is it possible to predict who will develop ARC and who will develop AIDS?

While a high proportion of people who are infected with HTLV-III will develop a clinical disorder, the evolution of HTLV-III infection has not been defined well enough for us to predict which asymptomatic persons will develop ARC or AIDS, or which persons with ARC will progress to develop AIDS. Current estimates suggest that the risk of ARC in persons with HTLV-III infection may be 20 per cent to 40 per cent within the first three to five years of infection, and that the risk of AIDS may be five per cent to at least 10 per cent. The long-term prognosis for people who remain asymptomatic with HTLV-III infection for five or more years is currently unknown.

What laboratory procedures are currently being used to determine whether an individual has been infected?

Because virus isolation techniques are costly and time-consuming, they are not practical for routine application in screening and counseling. Moreover, while highly specific for HTLV-III infection, virus isolation techniques are not sufficiently sensitive to identify all infected persons, particularly those who are asymptomatic. Alternatively, persons infected with HTLV-III can be detected by a recently licensed serological test, an enzyme immunoassay (EIA) for virus antibody, which is both highly sensitive and specific. In addition, an even more specific Western blot test is used as a reference laboratory procedure to help to assess the significance of positive EIA results.

What does a positive antibody test indicate?

A positive antibody test indicates past exposure to the AIDS virus, and until the natural history of HTLV-III virus infection is better understood, persons who test positive should be considered to be infected with the virus.

Is the positive test diagnostic of ARC or AIDS?

We should emphasize that a positive antibody test simply denotes that the person is or has been infected with HTLV-III. Taken by itself, a positive test is not diagnostic of ARC or AIDS and does not mean that the infection will progress to ARC or AIDS.

How is the antibody test currently used as a prevention strategy?

At this time, one of the most important applications of the HTLV-III antibody test is to protect the nation's blood supply. As a first phase in the blood screening procedure, people are instructed not to donate if they are known to be members of a group at risk for AIDS. In the second phase, blood or plasma of people accepted as donors is screened for antibody to HTLV-III. Beginning in April, 1985, blood and plasma collected in the United States has been screened using one of the licensed antibody tests. Currently, virtually all blood and plasma units collected are screened.

What is done with positive units of blood and plasma?

Positive units are destroyed and the donor's name is added to a donor deferral register, using a code to keep the reason for deferral confidential. Each blood and plasma center has guidelines for additional testing to confirm the positive result and for notifying the donor.

What can be done about members of high-risk groups who want to donate blood as a way of learning their HTLV-III antibody status?

To discourage members of high-risk groups in particular from donating blood or plasma as a way of learning their HTLV-III antibody status, there are alternate test sites to provide this specific service in most states.

Where are alternate test sites located in West Virginia?

In West Virginia, alternate test sites are located in:

Berkeley County
Health Department
125 King Street
Martinsburg, WV 25401
Telephone: 263-5131

Cabell-Huntington
Health Department
1336 Sixteenth Street
Huntington, WV 25701
Telephone: 523-6483

Mid-Ohio Valley
Health Department
211 Sixth Street
Parkersburg, WV 26101
Telephone: 485-7374
or 1-800-642-1996

Wheeling-Ohio
Health Department
16th and Chapline Streets
Wheeling, WV 26003
Telephone: 234-3682

Raleigh County
Health Department
1602 Harper Road
Beckley, WV 26801
Telephone: 252-8531

Venereal Disease Bureau
151 11th Avenue
South Charleston, WV 25303
Telephone: 348-2950

What is the procedure for people screened at alternate test sites?

With the assurance of confidentiality, people screened at alternate test sites for HTLV-III virus infection can be counseled and referred, if necessary, for medical follow-up. In the absence of definitive therapy or a vaccine, identifying and counseling infected people or those at high risk of acquiring the HTLV-III virus are important prevention strategies since they can be advised to alter those behaviors posing a risk to potential contacts.

Given that transmission modes of the HTLV-III virus are similar to those of the Hepatitis B virus and that certain health care workers are at increased risk for acquiring Hepatitis B, is there a similar occupational risk for acquiring ARC or AIDS?

Health care personnel not directly exposed to the blood or body fluids of AIDS or ARC patients are at no increased risk for HTLV-III infections. Even with accidental parenteral exposure the risk is minimal. One case possibly associated with parenteral exposure has been documented in England. Another was identified in a prospective study of 42 health care workers with no known risk other than accidental parenteral exposure. To date, other studies following nearly 200 similar occupational exposures have failed to demonstrate evidence of HTLV-III transmission. While additional follow-up of these groups is in progress, the occupational risk from unintentional parenteral exposure appears to be extremely low. This contrasts with the risk of transmission of Hepatitis-B following accidental inoculation, which is approximately 12 per cent. Thus. occupational risk of transmission of AIDS from unintentional percutaneous injury is much less than the risk of transmission of Hepatitis-B following similar injury.

What about the theoretical risk of transmission from mucous membrane contact with blood or other body fluids?

One must also consider the theoretical risk of transmission from mucous membrane contact with blood or other body fluids, but to date none has been convincingly demonstrated or suggested in cross-sectional sero-surveys or follow-up studies of health care workers who documented such exposure. Even the real and theoretical risks of occupational transmission of AIDS can be minimized, however.

How can you guard against accidental needle sticks?

Approximately 40 per cent of accidental needle sticks that occur in hospital settings are preventable if health care workers follow recommended precautions when handling used needles or other sharp objects. By familiarizing themselves with these and other basic infection control practices, health care workers can reduce their risk of acquiring the HTLV-III virus within the health care setting even further.

Can you expand on the potential for transmission of AIDS through heterosexual contact?

While the spread of AIDS in the United States has been amplified in gay communities and among intravenous drug users, we should not let the magnitude of the contribution of these groups to the AIDS problem here distract us from the potential for transmission among heterosexuals. In several developing countries where homosexual behavior and intravenous drug abuse are not as prevalent as in the United States, most adult patients are sexually active heterosexual men and women. Among the adult/adolescent AIDS cases in the United States, less than one per cent of the males and 15 per cent of the females have heterosexual contact as their only known possible exposure, but this may only be the tip of the iceberg, however.

What is the risk of transmission from prostitutes?

While male-to-female transmission is well documented, there is reasonable evidence to suggest transmission from asymptomatic prostitutes. This latter group may constitute a significant reservoir for the AIDS virus because of their frequent illicit use of drugs and contact with bisexual males. A recently published study reported AIDS among several military personnel whose only known risk had been frequent contact with prostitutes.

Is the risk increased by the number of heterosexual partners?

It is now recognized that the risk of HTLV-III virus infection increases with the number of reported heterosexual partners. A concern with promiscuous heterosexual behavior, therefore, is certainly justifiable, particularly since asymptomatic heterosexuals with no other known risk factors may be infectious for several years before symptoms are recognized. "Casual sex" may become an individual, as well as a public, health risk. One can minimize the risk of acquiring the HTLV-III virus by engaging in a mutually monogamous relationship and by avoidance of prostitutes and other people at risk for AIDS.

Does use of condoms help?

Consistent use of condoms, although of no proven efficacy, may assist in preventing infection among persons who engage in sexual activity with several partners.

Amniotic Band Syndrome: Report Of Two Cases

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PHILLIP ULRICH, M. D.
Resident, Department of Family Practice, United Hospital Center

The purpose of this paper is to report perplexing cases of stillborn infants with unique patterns of craniofacial-limb anomalies which appear to be related to, and possibly caused by, aberrant amniotic bands.

The amniotic adhesion malformation term, amniotic band syndrome,[1] has been known for centuries[2] but the attention of medical writers in recent years, touched by the monograph of Torpin,[3] has provoked renewed interest.

In the genesis of this syndrome, previous rupture of the amnion and consequent attachment of fibrous amniotic tissue bands to the various deformed parts of the fetus have been suspected as early as 1865. Early clinicians[4] believed that the constricting rings and amputations were due to mechanical causes, though Chiari[5] suggested that the malformations are secondary to earlier intrauterine inflammatory processes.

Case One

J.S., a 21-year-old nullipara, was admitted to the labor and delivery service of the United Hospital Center at 32 weeks' gestation following sudden onset of heavy vaginal bleeding and severe abdominal cramps. She had had an uncomplicated pregnancy with no history of illness, trauma, toxic exposure, or drug ingestion.

Physical examination showed a moderately obese white female in mild distress with normal vital signs. The size of her uterus was consistent with a gestation of 32 weeks, and uterine height measured seven cm above the umbilicus. On initial pelvic inspection, the tissue protruding through the vagina appeared to be part of the placenta, but more careful examination confirmed the presence of bowel loop with attached blood clots.

Fetal monitoring revealed irregular uterine contractions but no fetal heart beat. A portable frontal projection of the abdomen showed fetal monstrosity, and retrospective review of the film visualized a deformed fetal skeleton and identified only one femur (Figure 1). Intravenous oxcytocin was given to augment uterine contractions. For delivery, atropine sulfate 0.4 mg and diazepam five mg were administered. Ketamine was used as the induction agent and anesthesia was maintained with nitrous oxide and oxygen. A difficult breech extraction was ultimately performed and a 1,453-gram, female stillborn infant with placenta attached to her head was delivered approximately four hours after the onset of the initial symptoms (Figure 2).

The maternal surface of the placenta presented depressed areas containing unorganized clotted blood.

Figure 1. Portable anterioposterior x-ray showing absence of fetal calvaria and single femur.

The umbilical cord, inserted marginally, measured 19cm and, on cross section, showed two arteries and one vein. Rolled up fetal membranes extended directly toward the right lower extremity into a rope-like structure that was attached to the lower edge of the abdominal defect (Figure 3).

At autopsy, a large defect on the lower right abdomen measured eight cm at the largest dimension. The liver and the intestines protruded through this defect. The right leg was missing entirely and the left leg was normal. Dissection of the heart, great vessels,

Figure 2. Stillborn infant with multiple structural defects secondary to early amniotic rupture. Note absent right leg, gastroschisis, craniofacial defects, and placenta attached to scalp.

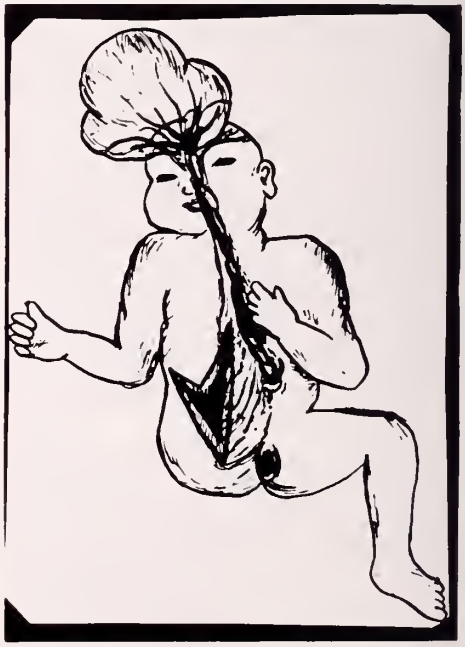

Figure 3. Abdominal defect after removal of liver and bowels with amniotic tissue bands attached to its edge.

and lungs revealed no congenital abnormalities.

The upper extremities appeared to be normal; also, the eyes, ears, nose, throat, and mouth were without significant defects. A defect was noted on the vertex of the head where the placenta with its umbilical cord was attached. The placenta measured 14 x 10cm. On dissection of the placenta from the head, brain tissue protruded into the substance of the placenta. The defect on the top of the head measured five cm in greatest diameter.

Microscopic examination of the brain, heart, and viscera demonstrated considerable congestion, and sections of the placenta showed areas of immaturity and necrosis.

The patient's postpartum course was uneventful. Serologic tests for syphilis and atypical antibodies were negative; her blood group was type A Rh positive. Reexamination of the patient's history indicated there had been fetal movement up to the day of admission and revealed no family history of malformation. The parents of the infant were not related, but there was a 25-year difference in their ages.

Case Two

T.P., a 21-year-old gravida 1, para 0, was admitted to the United Hospital Center on April 3, 1985, with diagnosis of fetal demise. She was approximately 26 weeks' pregnant. Hyperemesis gravidarum of three weeks' duration occurred during her third month of pregnancy, and two severe falls on iced sidewalks were sustained at 15 and 18 weeks' gestation. A urinary tract infection was treated in February, 1985, with sulfisoxazole (Gantrisin).

The patient's initial prenatal examination was at 14 weeks' gestation when uterine fundus was felt and measured 10cm above the symphysis pubis and fetal heart beats could be heard with an ultrasonic stethoscope at the rate of 136 beats per minute. Studies of her routine blood tests showed the patient to have blood type O, Rh negative, non-reactive RPR, and positive (Immune) rubella titer.

Three days prior to admission the patient experienced no feeling of fetal movements and auscultation detected no fetal heart beat. On the following day, as sonographic examination demonstrated neither fetal movement nor fetal heart pulsation, the intrauterine death was confirmed. Pelvic ultrasound furthermore visualized the fetal spine but failed to identify the fetal cranium despite multiple sections (Figure 4).

On the evening prior to planned induction, laminaria tents (Dilateria) were inserted into the cervical canal to dilate the uterine cervix.

At 8 A.M. on April 4, after removal of laminaria, an intravenous infusion of oxcytocin was given and continued for seven hours but failed to produce uterine contraction. Because repeat oxcytocin induction on the next morning did not establish labor, and the psychological stress imposed upon the patient was intensifying, hysterotomy was chosen to terminate the pregnancy. At laparotomy, a low segment transverse cesarean section was done.

A female stillborn fetus with placenta attached to her head was delivered. Rolled up fetal membranes, which extended toward the mouth in a rope-like structure attached to the lower edge of the palate, had produced cleft lip and palate. Band-shaped membranes also were found, one constricting the left leg and the other adherent and extending from one hand to another, amputating the middle fingers (Figure 5).

Reexamination of the patient's history indicated no relationship bond between the parents of the fetus and revealed no family history of malformation. The patient's postoperative course was uneventful and she was discharged from the hospital on the fourth postoperative day.

Figure 4. Scan of patient T.P. demonstrating fetal spine but no fetal cranium.

Discussion

The pattern of anomalies seen in these cases can be attributed to amniotic bands that form *in utero* and constrict the developing fetus. Most reported cases have dealt with single, isolated defects rather than with the severe, multiple defects reported here. Although these fetal anomalies have been attributed to aberrant tissue bands[6] with resulting fetal compression,[7] their etiology is unknown. There has been much controversy over the origin of the bands.

Streeter[8] considered the fetal defects to be on a genetic basis within the developing fetus itself: the outer bands, he believed, were the products of degenerated fetal tissue. Smith[9] agrees with the interpretation of Ballantyne[10] which ascribes the primary abnormality to the amnion, with amniotic strands encircling fetal parts, especially the distal limbs. Pagon,[11] however, disagrees. He claims that such a consistent pattern of multiple, noncontiguous malformation secondary to random attachment of amniotic tissue bands is very unlikely.

Figure 5. Stillborn infant. Note amniotic bands, one tethering left leg, the other producing cleft lip, and yet another adhesive one stretching between the two hands amputating the middle fingers.

He feels that a more probable cause is the alteration of early embryogenesis by an unrecognized teratogen or a lethal dominant mutation.

Torpin[3] reaffirmed the mechanical hypothesis and proposed that the primary defect is an early rupture of the amnion, with the chorion remaining intact and amniotic bands a secondary phenomenon entangling the protruding parts of the fetus. According to him, the amnion alone may rupture, giving rise to an extra-amniotic gestation in one of every 5,000 to 15,000 human pregnancies. Although the exact cause of rupture is unknown, fetal trauma and injury resulting from a blow of some sort to the mother's abdomen during gestation has been considered a likely cause. However, drug ingestion, fetal circulatory breakdown, amnionitis, development anomalies of the amnion, and amniocentesis have all been examined as possible etiologic factors.[12-18]

The pathogenetic development of some of the anomalies found in these patients such as gastroschisis cannot be adequately explained as the direct secondary effect of tissue bands. It is suggested[19] that swallowing of a free end strand makes possible fixation of fetal head against the placenta long enough for fusion to take place. As the anterior craniofacial skeletal structures are derived from neural crest cells that migrate from the neural fold of the frontonasal and maxillary process, as well as from the anterior calvaria, the amniotic bands might then interfere with this normal sequence of embryologic development and give rise to craniofacial malformations. Disruptions may be, on the other hand, secondary to the tearing apart of structures which have already developed; an amniotic band in such condition cleaves to the developing craniofacies and produces craniofacial anomalies cited here. Ordinarily, one would expect to find an association between brain and facial fissures in all but a few cases, as illustrated in the first patient, in which a short umbilical cord rather than the swallowed free end band prevents the fetus from escaping.

Higginbottom *et al.*[6] studied several affected patients and concluded that early rupture — as judged by the coexistence of a lesion that permitted the time at which development was interrupted to be estimated — could result in multiple, severe deformities while late rupture would produce only limb defects. Because formation of the frontonasal process, limb budding and flexion of the embryo normally occurs approximately 28 days after conception, the presence of malformations in the first case implies that rupture of the amnion must have occurred before the 28th day of embryonic life, and after that period in the second case.

It is reasonable to believe that the temporary reduction in size of the gestational sac, due to reabsorption of amniotic fluid by the amnion denuded chorion, influences the production of abrasions and adhesions on projecting parts of the fetus.

Summary

The amniotic band disruption complex, a nongenetic entity once thought to be very rare, is probably underdiagnosed. The syndrome should be included in the differential diagnosis of any monstrosities. The exact cause of rupture of both amnion and chorion is not known. Deformation due to fetal compression occurs secondary to oligohydramnios and/or tethering of a fetal part. The majority of such cases reveal no histologic evidence of inflammatory process. Since the weight of current evidence favors an assumption that the abnormalities are acquired, are non-transmissible and have negligible recurrence risk, the parents of these children should not be counseled against future pregnancies.

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Six Minutes 'Til Midnite

At 11:54 P.M. on March 8th, six minutes before the gavel hammered the end of the 67th Legislature, this body passed the first professional liability tort reform measures ever in West Virginia.

Although not a perfect bill, we anticipate that Governor Moore will sign it into law.

It's a comprehensive piece of legislation, which contains extensive changes in the Medical Practice Act regarding physician discipline as well as significant requirements for the insurance underwriters of professional liability insurance in West Virginia.

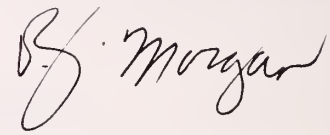
The medical profession should be very proud of those who had a hand in bringing about this bill including the many hard-working Auxiliary members, Willard and Arnold Communications, attorney Don Sensabaugh, our staff, particularly Mert Scholten, our Executive Director, and Dee Crabtree, Manager, Government Relations, and all the physicians and their spouses who showed up on our Day of Concern and periodically assisted throughout the session.

Many others gave us good help—Ken Rutledge and the staff of the Hospital Association, and Richard Stevens, Executive Director of the Dental and Pharmacy Association.

The legislators who gave us constant support and sponsored our legislation are too numerous to list here but we will acknowledge their assistance publicly at the appropriate time.

A few days before the end of the legislative session, one of the state newspapers began an editorial on tort reform with the comment, "They said it couldn't be done." At times, our tired, loyal band of lobbyists were inclined to agree as we tramped the marble halls of the statehouse talking with anyone who would listen.

The State Association has established itself as a viable political force in West Virginia. We must not let that momentum die. Through WESPAC, we must give careful consideration to the issues and candidates, and support those who understand the need for a strong medical profession.



David Z. Morgan, M. D., *President*
West Virginia State
Medical Association

Dr. David Morgan Proves His Leadership

Leadership is an elusive quality, but it has not eluded WVSMA's current President, Dr. David Morgan.

All who worked with him during the past two months of the legislative session can attest to his leadership strengths and character as he led a concerted lobbying effort which resulted in the first-ever tort reforms in West Virginia.

It was no small feat when one considers that at the outset of the session all the smart money was betting that doctors would get nothing in the way of tort reform. Doctor Morgan was a constant presence during the entire session and a large number of legislators, staff members, secretaries and other lobbyists soon knew who he was. Greetings of "Hi, Doc" were heard frequently from persons of every ilk and calling who passed him in the legislative halls.

Most importantly, Doctor Morgan demonstrated the ability to address the issues directly and to argue his point well without losing his cool. He understood compromise and the art of giving and taking. And he was ably assisted by WVSMA legal counsel, Don Sensabaugh, whose ability to determine nuances of meaning and understand the implications of the legal language upon medicine as the various measures were argued was priceless.

It is safe to say that not everyone is totally pleased or satisfied with what evolved, but that is not unusual in a situation where compromise is at work. We can, however, take comfort in the fact that this state has finally joined the ranks of the other states in the union in adopting some reforms. At least the door is opened for future efforts to improve tort law.

And the thanks for that go largely to the leadership of David Z. Morgan, M. D., President and lobbyist extraordinaire.

Seat Belt Use Law Still Needed

We don't understand exactly why the past session of the State Legislature failed to approve a mandatory automobile seat belt law in West Virginia.

The Legislature did pass a bill requiring child passenger restraint systems for children nine years and under.

Prior to and during the session we noticed that the letters to the editors in some state newspapers seemed to reflect a negative stand against mandatory seat belt use more often than not. The reason most often cited was "personal freedom." You know how it goes — "If I'm willing to take a chance on getting injured or killed that should be up to me."

We suspect the legislators received a lot of this "personal freedom" opposition, and maybe that is the biggest reason the legislation failed.

It is assumed that the rationale for the person espousing freedom of choice is that injuries, even death, from an automobile accident "don't hurt anyone else," and that's where we beg to differ.

Society is just too complicated to let us off that easy, for hardly any of us operates truly in a vacuum without some tie to family or some responsible party.

The seriously injured driver — who was not wearing a seat belt — causes an "opposite reaction" in someone or in some aspect of society in terms of such things as the time and expense involved for the original emergency care team, medical care in the hospital and perhaps beyond, mental anguish on the part of family or friends, lost time from work, loss of income, lost production by the employer, rate increases in accident, hospital and other types of insurance, etc.

When considered in this light, we believe the rational person will agree that the state has the right, and the moral obligation, to require the wearing of seat belts by adults.

Meanwhile, traffic death tolls among those drivers and passengers covered by seat belt use laws are continuing to decline, according to Traffic Safety Now, Inc.

Among the six states with the longest experience with seat belt use laws — New York, New Jersey, Illinois,

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Michigan, Texas and Nebraska — decreases in fatalities range from 10 to 26 per cent, which translates into a savings of nearly 525 lives in those six states alone, the organization reports.

State police in Michigan recently reported its first weekend without a traffic fatality in 10 years — or more than 500 weekends, Traffic Safety Now continued, and quoted Michigan Governor James Blanchard as saying: "This measure (Michigan's seat belt use law) stands as one of the most important traffic safety measures ever adopted in this state. It promises immediate savings in lives, limbs and dollars for our citizens."

The savings in human lives noted above is impressive. But it seems a lesson also can be learned by that independent "cuss" who cruises down the highway without buckling up, has an accident, and inflicts the consequences of his negligence upon the lives of others.

Profile Of The Gambler

Contrary to the traditional stereotype of the compulsive gambler as an upwardly mobile, middle-class male, the profile of the gambler of the '80s is changing to include the blue collar worker and women, according to one hospital.

Joseph W. Ciarrocchi, Ph.D., Director of Addiction Services at Taylor Manor Hospital in Ellicott City, Maryland, which treats compulsive gamblers, said the hospital is increasingly providing assistance to men and women from all walks of life, who often are dependent on drugs and alcohol as well as gambling.

Ciarrocchi described the clear pattern compulsive gamblers fall into: "First they spend all their own money — paychecks, savings, stocks, bonds, even insurance. Anything that can be converted to cash is fair game for the gambler.

"They then turn to other resources such as taking out a second mortgage on a home or running up credit card debts. Selling personal property usually follows soon after. The family silver, jewelry, cars, or anything that has some value.

"No matter how much they might win, it's never enough. Soon they resort to borrowing or figuring out ways to get money from other people. It has been estimated that as much as 40 per cent of the nation's white collar crime may be related to compulsive gambling. The American Insurance Institute has determined that compulsive gambling is the No. 1 cause of workplace theft, fraud and embezzlement." Ciarrocchi estimated that 1.1 to 4.4 million people in this country have taken the slide into financial and emotional ruin due to their uncontrollable gambling.

The blue collar worker can get caught up in the drinking and betting syndrome — a dangerous combination. This can be traced to bars where poker machines are located, according to Ciarrocchi. The typical blue collar poker machine gambler will drink while playing. The association of the two can cause or heighten an addiction to alcohol and gambling.

"Compulsive gamblers who frequent casinos display a different pattern of substance abuse," Ciarrocchi said. "Games of chance, such as blackjack, require skill and concentration, so some gamblers are careful to remain sober until the game is over. Then they indulge in alcohol or drugs."

To be chemically dependent and a compulsive gambler apparently increases the risk of impairing one's life functions. By way of example, Ciarrocchi presented the results of a study he did comparing 12 chemically dependent compulsive gamblers in the hospital's inpatient program with 12 chemically dependent psychiatric patients having no gambling history. The study was disclosed at the recent First Annual Conference on Gambling Behavior at the John Jay College of Criminal Justice in New York. His findings were as follows:

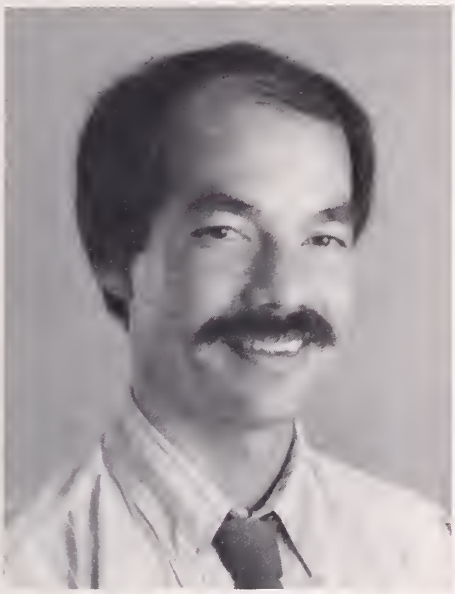
- Chemically dependent gamblers had a higher rate of depression than chemically dependent non-gamblers. All the gamblers experienced significant depression as compared to only two-thirds of the non-gamblers.
- The gamblers had more frequent conflicts with relatives or friends.
- A higher number of suicide attempts had been made by the gamblers compared to the non-gamblers.
- Sixty-six per cent of the gamblers reported chronic medical problems, compared to only 16 per cent of the non-gamblers. Ciarrocchi attributed this finding to the stress accompanying the compulsive gambling lifestyle.

One patient was a compulsive gambler whose addiction cost him five homes and seven businesses. When he was in business, he stole from himself, giving his family only minimal assistance until he exhausted his own resources. Then he began legally borrowing, and when he couldn't pay those debts, he began illegally borrowing.

After spending two years in jail for white collar crimes, he sought therapy and was able to control his gambling. Unfortunately, the urge remained, and he turned to drugs and alcohol to fill the void. Stress, anxiety, alcohol, Valium, Nembutal. He finally sought treatment again, and this time it worked.

Women suffering from compulsive gambling follow the same paths to emotional and financial devastation as their male counterparts, but with some striking differences. Not only do they earn far less money than the men, but they lack the same spouse/family support system — usually they are working, single mothers, struggling to raise one or more children on their own. They are in worse shape emotionally, and many are also dependent on alcohol or drugs.

The female gambler today is still "invisible," as compared to men, but a growing number of these women are seeking help to combat their disease.



Thomas E. Finucane, M. D.

Mabel M. Stevenson, M. D.

'Polypharmacy And The Elderly,' 'Blood' On Convention Program

Huntington, Morgantown Speakers, Second Session

"Polypharmacy and the Elderly" and "The Judicious Use of Blood and Blood Products" will be two of the papers presented during the August 15 second general scientific session of the WVSMA Annual Meeting in August.

The former paper will be presented by Thomas E. Finucane, M. D., Assistant Professor of Medicine, Division of Comprehensive Medicine, West Virginia University School of Medicine, Morgantown.

Mabel M. Stevenson, M. D., Director, Tri-State Red Cross Blood Services, Huntington, and Clinical Professor of Pathology, Marshall University School of Medicine, will give the blood products talk.

The 119th Annual Meeting is scheduled August 12-17 in White Sulphur Springs at the Greenbrier.

General sessions also are planned for Thursday morning, August 14, and Saturday morning, August 16, with scientific subjects to include headaches, non-diabetic endocrine emergencies, facts and fads in nutrition, strict diabetic control, and clinical clues in arthritis.

Previously Announced

It was announced previously that Drs. Richard E. Kleinmann of Charleston and Frederick C. Whittier of Morgantown will speak Thursday morning on "Approach to the Solitary Thyroid Nodule" and "Geriatric Hypertension," respectively.

Doctor Kleinmann is Associate Professor of Medicine, WVU Charleston Division; Doctor Whittier, WVU Professor of Medicine and Chief, Section of Nephrology.

It also was announced that the AMA President Elect (who will be installed in June), Dr. John Coury, Jr., will address the first session of the House of Delegates Wednesday afternoon, August 13. Doctor Coury, of Port Huron, Michigan, is a general and pediatric surgeon.

The convention schedule will start with a 2 P. M. meeting of the Executive Committee on Tuesday, August 12; the usual preconvention meeting of the Council at 9:30 A. M. Wednesday, and the opening session of the House at 2:45 P. M. Wednesday.

The first general session will be held immediately following 9 A. M. opening exercises Thursday.

General scientific sessions will offer hour-for-hour Category 1 credit.

Dr. Charles E. Turner of Huntington will be inaugurated as President to succeed Dr. David Z. Morgan of Morgantown during the second and final House session Saturday afternoon.

The Annual Meeting of the Auxiliary, with Jeanny (Mrs. M. V.) Kalaycioglu of Shinnston in charge as President, against will run concurrently with the WVSMA convention.

WVU Posts

At WVU, Doctor Finucane is Director of the Geriatric Assessment Clinic, Director of the Geriatric Teaching Block, Primary Care Medicine Residents, and Co-Director, Fundamentals of Gerontology, MDS 50, College of Sciences.

He is a member of the West Virginia State Task Force on Long-Term Care Planning and the American Geriatric Society Long-Term Care Committee.

(Continued on Next Page)

A member of Physicians for Social Responsibility, he was a 1984 delegate to the Fourth Annual International Physicians for the Prevention of Nuclear War in Helsinki, Finland, and an invited guest, also in 1984, to Soviet Physicians for the Prevention of Nuclear War.

The internist was graduated from Harvard College, received his M .D. degree from Emory University, and took his internship and residency at George Washington University.

Former WVU Faculty Member

Doctor Stevenson was a former faculty member at WVU Medical Center in Morgantown before going to Huntington in 1976.

A former President of the West Virginia Association of Blook Banks, she currently is Chairman of the Transfusion Committee at St. Mary's Hospital in Huntington, Chairman of the Huntington Area Hemophilia Association and the State Hemophilia Program Advisory Board, and Area Chairman of the American Association of Blood Banks Inspection and Accreditation Committee.

Doctor Stevenson also is a board member of the West Virginia Medical Institute and Secretary of the Cabell County Medical Society.

A native of Ireland, she received her medical degree in 1952 from Queen's University in Belfast.

Doctor Stevenson is certified by the American Board of Clinical Pathology and the American Board of Blood Banking and Immunohematology.

She is the author or co-author of some 16 scientific papers, and has presented a number of papers in this country and abroad.

Members of the Program Committee are Dr. John W. Traubert, Morgantown, Chairman; Doctor Kleinmann; and Drs. Marshall J. Carper, Charleston; Jose I. Ricard, Huntington; and John A. Rizzo, Fairmont, and William N. Walker, Jr., Clarksburg.

Dr. Stanley J. Kandzari, right, Morgantown, talked on urinary calculi during the Mid-Winter Clinical Conference held in Charleston in January. On the left is Dr. Tara Sharma, Huntington urologist who helped moderate the session on "Common Problems Encountered in Office Practice."

WVU Ophthalmology To Host English Doctor

Alec Garner, M. D., Ph.D., Professor and Director of Pathology at the Institute of Ophthalmology, University of London, will be Visiting Professor at West Virginia University Medical Center Department of Ophthalmology April 25 and 26.

Cases will be presented and discussed Friday, April 25, from 8 A. M. to Noon and Saturday, April 26, from 8 A. M. to Noon in the Medical Center Basic Sciences Addition Lecture Rooms A and B.

For further information contact the Department of Ophthalmology at (304) 293-3757.

Correction

In the top photo on page 56 of the March issue of *The Journal*, the person named as James W. Heaton should have been identified as Kenneth L. Robinson, Jr., J.D., Vice President of Legal Affairs and Corporate Secretary, Blue Cross and Blue Shield of West Virginia, Inc., Charleston.

The Journal regrets this error.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

April 4-5, Morgantown, Orbital & Eyelid Anatomy

April 11-12, Charleston, Cardiac Rehabilitation

April 11-13, Canaan Valley State Park, Issues in Occupational Health

April 17 (location, Marshall University School of Medicine), Ocular Complications of Diabetes: A Program for Primary Care Providers

May 1-3, Morgantown, Orthopedic Reunion Days

May 14, Charleston, 4th Annual West Virginia Conference on Infectious Diseases

May 16-18, Oglebay Park, Wheeling, Emergent Care of the Medical Patient

May 23-24, Morgantown, Annual Meeting, WV Affiliate: Am. Diabetes Assoc.

May 23-24, Morgantown, Health Officers Seminar

June 6-7, Morgantown, WV State Society of Anesthesiologists

June 7, Charleston, Wildwater Surgical Conference: Melanoma

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — April 17, "Advances in Coronary Care, Particularly the Use of Streptokinase," G. G. Thakker, M. D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A.M. — April 9, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment,"* Paul Francke, Jr., M. D.

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — April 2, "Use of Gastroscope," William O. McMillan, Jr., M. D.

May 7, "Early Recognition of Diabetes Retinopathy & Latest Modalities of Treatment"* (speaker to be announced)

Lewisburg, Greenbrier Clinic Conference Room, 4-6 P.M. — April (program to be announced)

Madison, Boone Co. Health Dept. — Conference Room, 2nd Tuesday, 7-9 P. M. — April 8, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment,"* H. Moseley Winkler, M. D.

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — April 22, "Early Recognition of Diabetes Retinopathy & Latest Modalities of Treatment" *(speaker to be announced)

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — April 16, "Early Recognition of Diabetes Retinopathy & Latest Modalities of Treatment" *(speaker to be announced)

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — April 23, "Early Recognition of Diabetes Retinopathy & Latest Modalities of Treatment"* (speaker to be announced)

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — April 3, "Update: Cancer Treatment," Alvin L. Watne, M. D.

*A special program in cooperation with West Virginia Department of Health; Department of Ophthalmology, WVU Medical Center, and WV Society of Ophthalmology.

Cardiac Rehabilitation Conference April 11-12

Three out-of-state doctors will join approximately 16 West Virginia doctors, nurses and other health care professionals on the faculty of a "Cardiac Rehabilitation" conference April 11-12.

The Friday-Saturday meeting will be held at West Virginia University School of Medicine, Charleston Division.

The three guest faculty members will be Drs. Melvin J. Steinhardt, Professor of Psychiatry and Medicine, The Albany (New York) Medical College of Union University, and attending psychiatrist, Albany Medical Center Hospital; Lenore R. Zohman, Director, Exercise Laboratory and Cardiac Rehabilitation, Montefiore Medical Center; Associate Professor of Medicine (Cardiology) and Professor of Rehabilitative Medicine, Albert Einstein College of Medicine, Bronx, New York; and Albert A. Kattus, Clinical Professor of Medicine, University of California at Los Angeles, and Director, Cardiac Rehabilitation, Santa Monica (California) Hospital.

Guest Speakers' Topics

Doctor Steinhardt will speak on "Emotional Aspects of Cardiovascular Disease;" Doctor Zohman, "Exercise Testing for Functional Evaluation and Exercise Prescription (Oxygen Consumption)," and Doctor Kattus, "Exercise Prescription in Patients with Valvular Disease."

The three guest speakers will speak consecutively Saturday morning beginning at 8:50.

Other discussion subjects will include basic exercise physiology; acute MI; basic arrhythmia monitoring — acute versus chronic setting; cardiac medications, and nutritional needs of the cardiac patient.

Workshops Scheduled

Pre-conference workshops relating to exercise and other aspects of rehabilitation will be held Friday morning prior to the 1 P. M. opening of the conference, and additional workshops are scheduled Saturday afternoon from 1:45 to adjournment at 4:30.

Special activities will include a "Three-Mile Fun Run" at 7 A. M. Saturday for participants and guests, and an aerobic class from 7 to 7:45 A. M. Saturday.

The program, presented in cooperation with the American Heart Association, West Virginia Affiliate, has been approved for 9.5 hours of AMA Category 1 credit, and for 1.1 CEUs by WVU. The optional preconference workshops will offer additional credit: Category 1, three contact hours; CEUs—.3.

For registration and other information, call (304) 348-9580.

April CME Conferences Scheduled In Clarksburg

With the exception of the April 2, conference, following are one-hour CME conferences for April scheduled at United Hospital Center in Clarksburg through the Family Practice Residency:

April 7, "Cardiac Contusion and Other Traumatic Heart Disease;" April 9, 'Cancer Conference;" April 16, "The Solitary Nodule;" April 22, "Diverticulitis;" April 23, "Bowel Obstruction;" and April 24, "Radiology Conference."

For additional information, call (304) 624-7589.

Addressing the "Day of Concern" physicians group are, from left, Del. K. O. Damron, D-Mingo; Del. Pat Hamilton, D-Fayette; Sen. Tony Whitlow, D-Mercer, and Sen. Vernon Whitacre, D-Hampshire.

Day Of Concern

The sun came out briefly following repeated showers all morning. Maybe that was a good omen. At any rate, the break in the weather lasted long enough for WVSMA to hold its "Day of Concern" to help boost tort reform legislation.

The outside ceremony was held on the State Capitol steps at 10:30 A. M. February 19 with more than 250 hardy doctors, auxilians, residents, students and others in attendance.

They came from all around the state, with some groups such as the Parkersburg Academy traveling in chartered buses.

The news media were on hand to record the event.

The program was started by President David Z. Morgan, M. D., Morgantown, who expressed the hopes and goals of the Association for obtaining relief in the professional liability insurance crisis.

Two senators and two delegates talked to the group and offered their views on liability legislation.

Following the outside ceremony, the medical delegation went inside the Capitol where they sat in on the Senate floor session and later mingled with their local senators and delegates.

After lunch in the Capitol cafeteria, the group attended the afternoon House of Delegates session for a while.

It's satisfying now to know that a tort reform bill has been approved by the Legislature after years of work by the profession.

The doctors and their friends who gathered in Charleston on the Day of Concern, however, had no guarantees that their efforts would bear fruit. But they came and spent the day anyway.

And the showers started again after the closing of the program on the steps.

—Afterthoughts—

"While we didn't achieve every objective we sought," said Doctor Morgan, "we are pleased that we've made a true beginning toward meaningful tort reform. Our work must continue if we are to deal effectively with this serious matter and its implications for our patients-citizens."

More than 250 doctors and others gather on the Capitol steps in Charleston for the "Day of Concern."

State doctors, friends and news media representatives hear the program opened by President Morgan, upper left.

The "Day of Concern" group in the Senate galleries was recognized from the floor below.

The camera catches a look of concentration by Dr. David W. Ranson, surgical resident, fifth year, Charleston Area Medical Center.

President Morgan, below, is interviewed following the program on the Capitol steps.

Some faces in the crowd . . .

Tort Reforms Won After 11-Year Struggle

Comprehensive Bill Addresses Three Concerns

By Merwyn G. Scholten
WVSMA Executive Director

After 11 years of struggle, physicians in West Virginia have finally won some tort reform concessions.

Acting at six minutes before midnight adjournment Saturday evening, March 8, the Senate passed a compromise bill and one minute later, the House of Delegates did the same. The bill now goes to Governor Arch A. Moore who is expected to sign the legislation without hesitation.

The comprehensive bill addresses three areas of concern: physician policing, insurance regulation and tort reform.

Tort Reform Provisions

Addressing the tort reform provisions first, the measure offers four things: an improved statute of limitations, elimination of the ad damnum clause, definition of expert witness, and a cap on non-economic damages.

• The statute of limitations provides that a legal action for malpractice must be brought within two years of the date of occurrence or within two years of the date of discovery, but in no case can an action be brought more than 10 years after the date of occurrence. A previous West Virginia constitutional provision allowed an action to be brought up to 20 years after the occurrence.

For minor children the statute also states two years from date of occurrence or discovery but only up to the age of 12, whichever provides the greater length of time to bring an action. This means that pediatricians and obstetricians have only a maximum 12-year period rather than the previous 20-year period in which to have an action brought against them.

• Elimination of the ad damnum rule means that the plaintiff will no longer specify an amount of money being sought in a malpractice petition. Hence, news accounts will report only that a doctor is being sued and the damages demanded are sufficient to satisfy the minimums of the court jurisdiction in which the action is brought. Only at the time of trial or completion of the trial would any award or settlement become a matter of public record unless ordered to be kept secret by the judge. The defendant can, at any time, request a written statement setting forth the nature and amount of damages being sought.

• Under new rules provided in the legislation is a required pretrial status conference with a judge to occur within 9-12 months of the bringing of an action. This status conference will permit the judge to determine if a probable case exists, the issues in question, the need for a professional witness, and enables the judge to determine if the case is frivolous or not. If he determines the action to be without merit or without basis in fact, the court may direct in any final judgement the payment to the prevailing party of reasonable litigation expenses, including deposition and subpoena expenses, travel expenses incurred, and such other expenses necessary to the maintenance of the action, excluding attorney's fees and expenses.

• Under provisions in the section on testimony of expert witnesses and the standard of care, much of the current rules prevail but with the important additional language which says that such expert "is qualified in the same or substantially similar medical field as the defendant health care provider." Hopefully, this provision will eliminate the use of a "hired gun" who testifies in a case even though his/her specialty has little or no relationship to the case in question.

• The cap on non-economic damages is $1 million, an amount higher than WVSMA would like to have seen, but at least it is a cap and places an outside limit on such things as pain and suffering, loss of consortium, mental anguish, grief, etc. From an insurance actuarial position, the cap at least provides a determinable parameter against which to calculate premiums.

• The bill adopted also contains provision for severability; that is, if any portion of the law is later found unconstitutional it does not nullify the entire package of reforms.

Board Powers Enhanced

Board of Medicine powers are enhanced under the new law which gives the board the power to fine hospitals, insurers or professional associations which fail to report discipli-

Doctors answer questions following the myocardial infarction symposium ending the 19th Mid-Winter Clinical Conference held in Charleston January 24-26. From left are Drs. Robert C. Touchon, Huntington, and Stafford G. Warren and Harold Selinger, both of Charleston, speakers. Not shown is Dr. Robert J. Marshall, Huntington. The CME program was sponsored by WVSMA and Marshall University and West Virginia University schools of medicine.

nary actions against physicians. The fines range from $1,000 to $10,000. Hospitals are required to report any actions which result in a change of privilege status but the statute excludes temporary privilege suspensions for incomplete medical records or other similar minor infractions.

The bill also provides for a mandatory board review of any physician accumulating five judgements or settlements involving payments to defendants. A physician could have multiple claims, but unless they result in actual payment of awards or settlements, he would not be reviewed by the Board of Medicine. The provision requires no specific action or penalty beyond reviewing a doctor who has had five payouts, but leaves it to the board at that point to determine whether some form of discipline, re-education, or license limiting should be required of the physician.

Malpractice Insurers

Under the insurance provisions, malpractice insurers face additional demands for data to be submitted, and the law more clearly delineates cancellation and non-renewal requirements. Once a policy has been issued, the company cannot refuse to renew it except for one or more of the following reasons:

1. failure to pay premiums when due and in timely fashion;
2. the policy was obtained through material misrepresentation;
3. the insured violates any of the material terms and/or conditions of the policy;
4. the insured's experiences render him/her an increased risk, which experiences may include revocation or suspension of a professional license or two or more paid claims or judgments in a three-year period;
5. the unavailability of reinsurance upon sufficient proof to the insurance commissioner.

The measure also provides 90-day notice for non-renewals and 30-day written notice of cancellation if the policy is to be terminated prior to the normal renewal date, and such notice must state one of the reasons above for the cancellation.

Other sections of the insurance portion of the law state reporting requirements, rate-making procedures, hearing provisions, etc. and provide for fines up to $100,000 for failure to report disciplinary actions.

In short, the new law offers some tort relief and at the same time tightens the physician discipline process and forces the insurance companies to reveal additional data. The thought behind all the activity is that knowledge of potential disciplinary actions will make doctors even more careful, thus avoiding many claims from even arising, and the increased insurance information will help the state get a better handle on the situation and be in a better position to make future decisions on the entire professional liability issue.

AAFP Conference

'Type A Behavior' Co-Author To Speak

Ray H. Rosenman, M. D.

The co-author of the book, *Type A Behavior and Your Heart*, will be the speaker for a morning session on cardiovascular disorders highlighting the 34th annual Scientific Assembly held by state family physicians April 18-20 in Charleston.

Dr. Ray H. Rosenman, Senior Research Professor, Department of Behavioral Medicine, Stanford Research Institute in Menlo Park, California, will conduct the session on "The Impact of Anxiety and Non-Anxiety on Cardiovascular Disorders" Saturday morning, April 19, at the Holiday Inn Charleston House.

In the preface of their book, Doctor Rosenman and his co-author, Meyer Friedman, M. D., state, "In the absence of Type A Behavior Pattern, coronary heart disease almost never occurs before 70 years of age, regardless of the fatty foods eaten, the cigarettes smoked, or the lack of exercise. But when this behavior pattern is present, coronary heart disease can easily erupt in one's thirties or forties."

They are convinced that the spread of Type A behavior explains why death by heart disease, once confined mainly to the elderly, is increasingly common among younger people.

Sub-Topics

Sub-topics to be discussed by Doctor Rosenman will be "A New Look at Risk Coronary Heart Disease," "Relationships of Type A Behavior to Coronary Heart Disease and of Anxiety to Mitrovalve Prolapse," "Treatment of Hypertension for Prevention of Coronary Complications," and "Pharmacological and Behavioral Modifications of Behaviors Related to Cardiovascular Disease."

Doctor Rosenman will be speaking in the place of Dr. Robert S. Eliot of Phoenix, Arizona, as previously announced, who was unable to attend.

He also is Associate Chief, Department of Medicine, Mount Zion Hospital and Medical Center, San Francisco. Since 1985, he has devoted half time to clinical practice of internal medicine and cardiology and half time to research in lipid metabolism, pathogenesis of coronary heart disease, hypertension, predictive roles of risk factors for coronary heart disease, and role of Type A behavior pattern in coronary heart disease.

On Editorial Boards

Doctor Rosenman also is the author or co-author of 294 scientific publications and 59 chapters in scientific texts, and is a member of the editorial boards of *Journal of Behavioral Medicine*, *Current Selected Research in Human Stress*, and *Stress Medicine*.

(Continued on Next Page)

(Continued from Page 91)

A graduate of the University of Michigan (M. D. 1944), he is a member of the Medical Advisory Board, Council for High Blood Pressure Research of the American Heart Association, and a trustee of the American Institute of Stress, Yonkers, New York.

Doctor Rosenman will be one of some 14 speakers for the assembly of the West Virginia Chapter, American Academy of Family Physicians, of which Dr. D. Dean Patton of Princeton is Program Chairman.

See the February and March issues of *The Journal* for other speakers, topics and AAFP activities.

For registration or additional information, call (304) 776-1178.

Super Scope Shuffle

We're the GI Team, scopin' at Marshall,
And to all our patients, we are partial.

Sure have fun, sometimes cause trouble,
That don't keep us from doin' the Super Scope Shuffle.

The first name's Marc, that ain't no lark,
Subik's the last name, scopin's my game.

A briefcase I carry, not no duffle,
And I'm just here to do the Super Scope Shuffle.

My name's James, I'm notorious, of Irish fame,
May not be American, don't cause me no shame.

Been accused of livin' in a bubble,
That don't stop me from attemptin' the Super Scope Shuffle.

Jenny, that's my monicker, got a face pretty as a penny,
Procedures I've done, way too many.

They add on more till the numbers got to treble,
Just makin' me work harder to do the Super Scope Shuffle.

Me and James, we're quite a team,
No, no, no, we're not as dumb as we seem.

The patient's sounds sometimes are muffled,
And we're just here to do the Super Scope Shuffle.

Donna and Jenny, and all the other residents,
The patients all treat us like we're presidents.

Once in a while, we get in a scuffle,
But there's no doubt, we're here to do the Super Scope Shuffle.

What we do, it ain't real easy,
And sometimes, a stomach do get queasy.

That leads to feelings that sometimes are ruffled,
But that don't keep us from doin' the Super Scope Shuffle.

Whether it's looking down the throat or lookin' in the colon
Yessiree, we just keep on rollin;

Nosirree, it don't make you want to eat a truffle,
Just makes us wanna keep on doin' the Super Scope Shuffle.

Marc Subik, M. D.
Department of Medicine
Marshall University
School of Medicine

Editor's Note:

We aim to please but might just wheeze
Over the time it takes to make this rhyme.

An editor who might see fit to muzzle
A poem like this needs a Super Scope nuzzle.

Medical Meetings

April 3-6—Am. College of Preventive Medicine, Atlanta.

April 10-13—Am. College of Physicians, San Francisco.

April 13-17—Am. Assoc. of Neurological Surgeons, Denver.

April 13-18—Am. Assoc. of Immunologists, St. Louis.

April 14-18—Am. Roentgen Ray Society, Washington, DC.

April 18-20—WV Chapter, AAFP, Charleston.

April 19—WVSMA Loss Control Seminar, Wheeling.

April 25-26—WVU Visiting Professor, Dept. of Ophthalmology, Morgantown.

April 27-30—WV Academy of Ophthalmology, White Sulphur Springs.

April 27-May 3—Am. Academy of Neurology, New Orleans.

April 30-May 2—Christian Medical Society, Dallas.

May 1-3—WV Chapter, Am. College of Surgeons, White Sulphur Springs.

May 4-6—Am. Society of Clinical Oncology. Los Angeles.

May 5-8—Am. College of Obstetricians & Gynecologists, New Orleans.

May 6-9—Am. Pediatric Society, Washington, DC.

May 7-9—Am. Society for Artificial Internal Organs, Anaheim, CA.

May 10—WVSMA Loss Control Seminar, Martinsburg.

May 10-16—Am. Psychiatric Assoc., Washington, DC.

May 11-14—Am. Thoracic Society, Kansas City, MO.

May 11-16—Am. Society of Colon & Rectal Surgeons, Houston.

May 17-23—Am. Gastoenterological Assoc., San Francisco.

May 29-30—Am. Society of Transplant Surgeons, Chicago.

May 29-June 1—VA Society of Ophthalmology, Norfolk.

June 7-14—Am. Assoc. of Orthopaedic Medicine, Portland, Ore.

June 8-12—World Congress on Pediatric & Adolescent Gynecology, Washington, DC.

June 18—WVSMA Loss Control Seminar, Charleston.

July 3-7—Am. College of International Physicians, Dallas.

Sept. 20—WVSMA Loss Control Seminar, Parkersburg.

Oct. 18—WVSMA Loss Control Seminar, Beckley.

Nov. 8—WVSMA, Loss Control Seminar, Huntington.

Aug. 12-17—119th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

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WVU Medical Center News

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Deadline April 15

Health Science Aspirants Offered Study Programs

WVU is offering intensive seven-week study programs this summer to help prepare minority and disadvantaged students for health science careers in medicine, dentistry or pharmacy. Applications will be accepted until April 15.

This is the first step in a long-term commitment by the WVU Medical Center to help such students with pre-professional college work to compete for entry into professional schools and to complete their education.

A summer educational enrichment program for pre-freshman college students planning to attend WVU in the fall will be offered June 15-August 1 on the WVU campus in Morgantown, according to project coordinator Paul L. Clausell, M. D. Professor Ethel C. Montiegel is summer program coordinator.

20 Students to be Selected

Twenty students will be selected for the session, which will include an introduction to college-level sciences, workshops in mathematics and other learning skills, and observation of the work of health professionals and clinics. Academic counseling and additional needs are provided by WVU faculty and staff.

The summer facilitate entry program, also offered June 15-August 1, is designed for second, third or fourth-year college students who are interested in professional careers.

Selected students will receive a review of the appropriate admissions examination (Medical College Admission Test, Dental Admission Test or Pharmacy College Admission Test), experience with the interviewing process, academic counseling, orientation to the professions and the health science environment, and tours of the Medical Center campus and facilities. Any eligible West Virginia resident attending college in the state may apply.

Federal funds totaling $542,786 are helping to fund the overall program for three years after which the Medical Center has pledged to continue it. John E. Jones, M. D., WVU Vice President for Health Sciences, is project director while Doctor Clausell of the Behavioral Medicine and Psychiatry faculty is overall coordinator.

Selected applicants will receive free room and board in a WVU residence hall or per diem allowance and a mileage allowance for travel.

Applicants must submit ACT or SAT scores (pre-freshmen), a written statement of purpose, a grade transcript, a completed application and two letters of evaluation from instructors.

Further information and applications may be obtained from the Health Careers Opportunity Program, G106 Basic Sciences Building, West Virginia University Medical Center, Morgantown, WV 26506; phone 304-293-2420.

Louisville To Use Laser Technique Started By WVU

WVU physicians who developed a new laser surgery technique to open blocked arteries will work with the University of Louisville Hospital to expand their patient base.

"We'll be doing combined work with Louisville as soon as the protocol is approved there," said Abnash Jain, M. D., WVU Chief of Cardiology and principal investigator for the study.

Doctor Jain also disclosed that a second successful use of the technique, opening the femoral artery in the right leg of a patient, was performed at WVU Hospital in November. The first successful use was in July and "results were very good" in both cases, he said.

"But numbers are still insufficient to complete our study in the time we proposed," Doctor Jain said. "For that reason we decided to expand the potential patient base by working with colleagues at Louisville Hospital.

"They have the same equipment as ours including the YAG laser; their pulmonary and gastrointestinal work are the same, and they are adopting the protocol we devised."

Principal Investigator

Doctor Jain continues as principal investigator for the clinical study with the Louisville physicians as collaborators, and there will be visiting back and forth. Other members of the WVU team are vascular surgeon Ronald A. Savrin, M. D., anesthesiologist Harakh Dedhia, M. D., and pathologist S. P. Rochlani, M. D.

The WVU physicians use a fiber optic laser to burn a hole through the arterial blockage, then follow immediately with balloon angioplasty to expand the opening for normal blood flow. They were the first to develop this technique and reported on it at national and international meetings. It is now being used extensively in Europe.

"It is interesting — and heartening — that the technique we established is being followed successfully overseas," Doctor Jain said.

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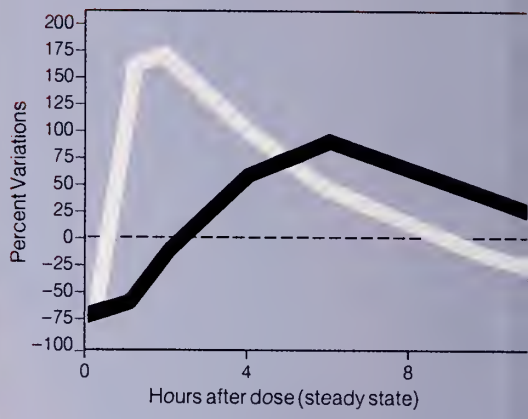

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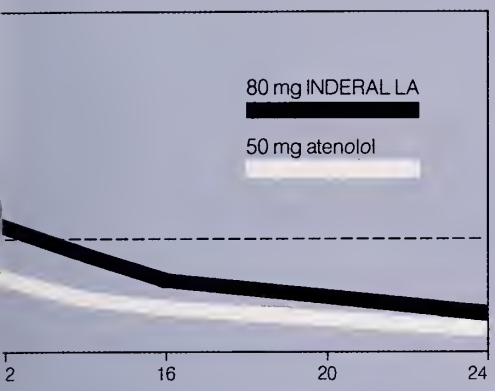

*Plasma concentrations in relation to the mean.

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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL® LA): Propranolol is contraindicated in: 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma; 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL® LA): CARDIAC FAILURE Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following *abrupt* discontinuance of propranolol therapy Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored In addition, when propranolol is prescribed for angina pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution, since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors

DIABETES AND HYPOGLYCEMIA Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease In patients with renal disease, thiazides may precipitate azotemia In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma

Thiazides may add to or potentiate the action of other antihypertensive drugs Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported

PRECAUTIONS

Propranolol hydrochloride (INDERAL® LA): GENERAL Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase

DRUG INTERACTIONS Patients receiving catecholamine-depleting drugs, such as reserpine should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity There were no drug-related tumorigenic effects at any of the dosage levels Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug

PREGNANCY Pregnancy Category C Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

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NURSING MOTHERS Propranolol is excreted in human milk Caution should be exercised when propranolol is administered to a nursing mother

PEDIATRIC USE Safety and effectiveness in children have not been established

Hydrochlorothiazide: GENERAL Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH

Interference with adequate oral electrolyte intake will also contribute to hypokalemia Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease) Dilutional hyponatremia may occur in edematous patients in hot weather, appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy

Insulin requirements in diabetic patients may be increased, decreased, or unchanged Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy

Thiazides may decrease serum PBI levels without signs of thyroid disturbance

Calcium excretion is decreased by thiazides Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function

DRUG INTERACTIONS Thiazide drugs may increase the responsiveness to tubocurarine

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use

PREGNANCY Pregnancy Category C Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing

PEDIATRIC USE Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL® LA): Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy

Cardiovascular. Bradycardia, congestive heart failure; intensification of AV block; hypotension; paresthesia of hands, thrombocytopenic purpura; arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place; short-term memory loss, emotional lability; slightly clouded sensorium; and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation; mesenteric arterial thrombosis; ischemic colitis.

Allergic. Pharyngitis and agranulocytosis, erythematous rash; fever combined with aching and sore throat; laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune. In extremely rare instances, systemic lupus erythematosus has been reported

Miscellaneous Alopecia, LE-like reactions; psoriasiform rashes; dry eyes; male impotence, and Peyronie's disease have been reported rarely Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:

Gastrointestinal: Anorexia; gastric irritation, nausea, vomiting, cramping, diarrhea, constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis, sialadenitis

Central Nervous System: Dizziness, vertigo; paresthesias; headache; xanthopsia.

Hematologic: Leukopenia; agranulocytosis; thrombocytopenia, aplastic anemia

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity; rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever, respiratory distress, including pneumonitis; anaphylactic reactions

Other. Hyperglycemia, glycosuria; hyperuricemia; muscle spasm; weakness; restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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MU School Of Medicine News

Compiled from material furnished by the Office of University Relations, Marshall University.

Doctor Walker Named Department Chairman

Dr. Robert B. Walker of Hamlin has been appointed Chairman of MU's Department of Family and Community Health, School of Medicine Dean Lester R. Bryant, M. D., has announced. Dr. John Walden has been named the department's Associate Chairman.

"Bob Walker truly personifies Marshall's commitment to providing medical care to underserved areas," Doctor Bryant said. "He came to Hamlin in 1975 with the National Health Service Corps, and stayed on to become a vital part of the Hamlin community as well as a most valued member of our faculty.

"John Walden is a highly respected member of the School of Medicine faculty and this appointment is a most appropriate way to recognize his enormous contribution to the success of the Marshall University School of Medicine," he added.

Since joining the Marshall faculty in 1979, Doctor Walker's roles have included Acting Chairman, Program Director of Family Practice, and Chief of the Division of Rural Health Research. He has been honored both by students and by the U.S. Public Health Service. He received his M.D. degree from the University of Florida College of Medicine in 1974 after graduating there with high honors.

Doctor Walden, a graduate of the West Virginia University School of Medicine, joined Marshall's full-time faculty in 1982. He has served as Program Director of the department's residency program, Chief of the Section of Family Practice, Director of International Health, and Director of the Family Practice Clinic. He also is founder and principal officer of Friends of Gentle People, a charitable association of physicians working with jungle-dwelling Indian tribes.

Marshall Grad Chosen NASA-Sponsored Resident

Dr. Denise Baisden, a School of Medicine graduate, has been accepted as one of two NASA-sponsored medical residents in the only civilian aerospace medicine program in the United States.

Doctor Baisden, of Huntington, will serve her residency at Wright State University and the Wright-Patterson Air Force Base in Dayton, Ohio. She is now a MU family practice resident.

She will work two years at Wright State, fulfilling both her residency requirements and requirements for a master's degree in the aerospace field. Then she and the other NASA-sponsored resident will spend an additional year at either Johnson Space Center in Houston or Kennedy Space Center at Cape Canaveral.

"After I finish, hopefully I'll be hired by NASA to work with astronaut care, selection and training, as well as research," she said.

Other Highlights

A team of School of Medicine students will compete in the 2nd Annual Caduceus Games to be held April 12-13 in Johnson City, Tennessee, sponsored by the Quillen-Dishner College of Medicine of East Tennessee State University.

Team members are J. D. Maynard (captain), Mark Coggins, Kevin M. Clarke, Robert C. Anton, K. Kearfott and David Parks. Alternates are James Morgan and Larry Hathaway. The team coaches are Dr. Scot Hines and Dr. Kevin Willis, both graduates of the School of Medicine and resident physicians at MU.

The competition is based on a College Bowl format, with students answering questions relating to basic and clinical sciences. Participating medical schools include Louisville, Mercer, South Alabama and Quillen-Dishner.

* * *

Dr. Gary O. Rankin, Chairman of Pharmacology, has received a five-year, $462,000 extension of his National Institutes of Health grant to study the nephrotoxicity of succinimides, found in fungicides and anti-epileptic drugs. The three-phase project will study the compound's structural requirements, the role of metabolites in nephrotoxicity, and cellular mechanisms. Marshall is the major United States center looking at succinimides' effect on the kidneys.

Binni Bennett, Director of the School of Medicine's Mood Disorders Clinic, and Dr. Leon McGahee, Professor of Psychiatry, are the primary investigators for a drug research study for a new antidepressant, nefasadone. Bristol Myers is providing $55,000 for the study.

* * *

John Marshall Medical Services has received a $2,465 grant from the March of Dimes to purchase a tympanometer for its Pediatrics Department.

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County Societies

CABELL

Dr. Sharon B. Lord, Commissioner of the West Virginia Department of Human Services, was guest speaker for the meeting of the Cabell County Medical Society February 13 in Barboursville at the Holiday Inn Gateway, East.

Doctor Lord, in an inspirational and outstanding speech, addressed the topic of "Maximizing Human Resources."

She described her plans for using the rich human resources of Appalachia, an area with the highest work ethic and the lowest crime figures in this country, to address the problems resulting from the state's declining economy.

Problems such as the backlog of Medicare/Medicaid payments are being addressed and remedied, she said.

She was given a standing ovation at the end of her talk.

Dr. Maurice A. Mufson, President, announced that the book, *History of Cabell County Medical Society*, was in the hands of the printer, and Dr. Jack Leckie urged the members to buy copies.

Dr. Charles E. Turner urged all physicians to become members of the State Medical Association's PPO.

Dr. Robert L. Bradley was elected to honorary membership.—Mabel M. Stevenson, M. D., Secretary.

McDOWELL

The McDowell County Medical Society met February 12 in Welch at the Bonanza Steakhouse.

The guest speaker for the evening was Dr. Gary Ganzer of Matewan who represented a concerned group of physicians for tort reform. He discussed recent events in the State Legislature and candidates for the Sixth District Senate seat including James B. Simpkins and the incumbent, Senator H. Truman Chafin.—Barbara A. Fenton, M. D., Secretary.

Book Review

The Premature Labor Handbook: Successfully Sustaining Your High-Risk Pregnancy — Patricia Anne Robertson, M. D.; and Peggy Henning Berlin, Ph.D. $16.95. Doubleday and Co., Inc., 245 Park Avenue, New York, New York 10167. 1986.

This handbook is designed to be read by women facing a prolonged bed rest because of threatened premature delivery. There are 10 chapters on: the medical aspects of premature labor and the "incompetent" cervix; the stresses of premature labor; relationships; for the family — relating to the couple in premature labor; maximizing time and space; the hospital experience; preterm delivery and the premature baby; childbirth preparation and premature labor; nutrition and exercise; and embracing the challenge.

As can be seen, this is a holistic approach to the problems a women, and her family and neighbors, will face during the weeks of prolonged idleness. The tone of the book is positive, explaining what is going on and giving ideas as how to best make the most of the circumstances. There are vignettes from patients' experiences.

Physicians may well choose to buy this book for their patients to read but I feel that there are some limitations as to the women likely to benefit. It seems to me to be a very cerebral book, a very California book — whatever these images may mean. Nevertheless, the positive and thorough approach could help many women. — R. John C. Pearson, M.B., M.P.H.

State Surgeons To Meet

Dr. Robert Chase, Professor of Surgery, Stanford University, will be guest speaker during the meeting of the West Virginia Chapter, American College of Surgery.

The meeting will be held May 1-3 in White Sulphur Springs at the Greenbrier.

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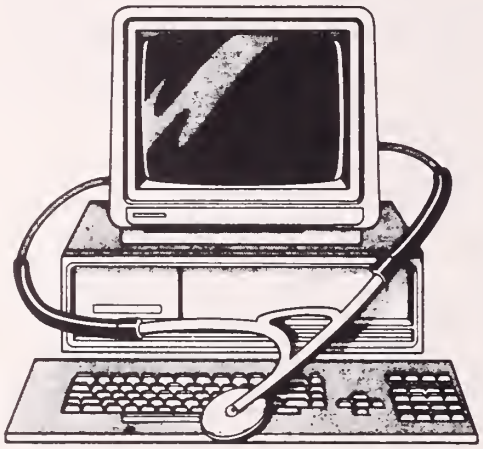

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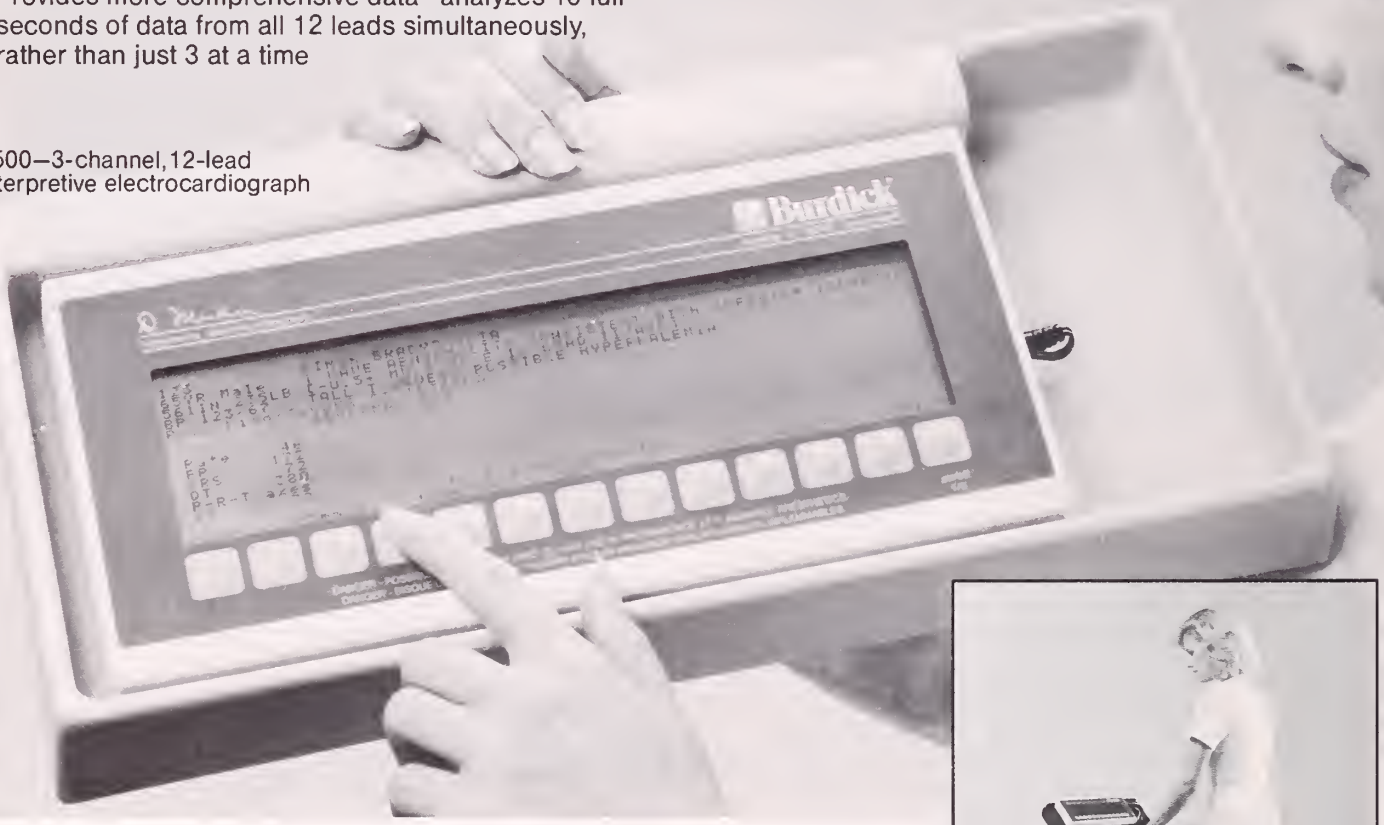

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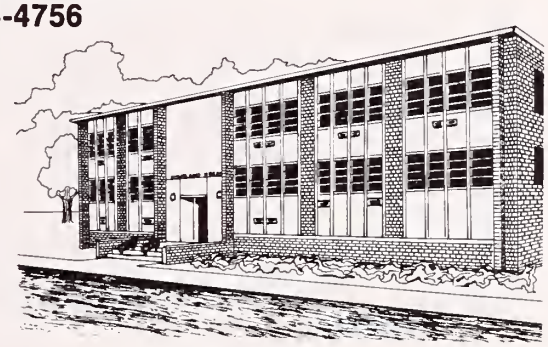

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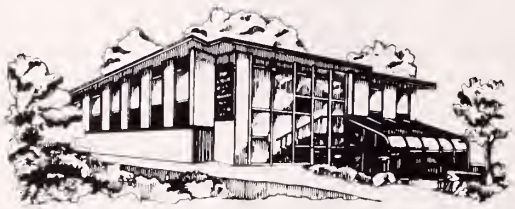

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Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of Dyrenium (triamterene, SK&F CO.) and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function.

Thiazides may add to or potentiate the action of other antihypertensive drugs.

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Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

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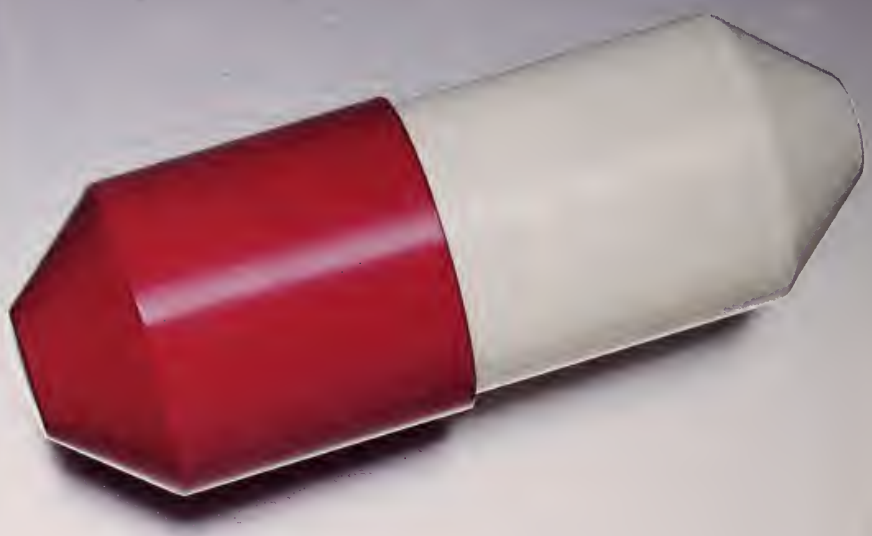

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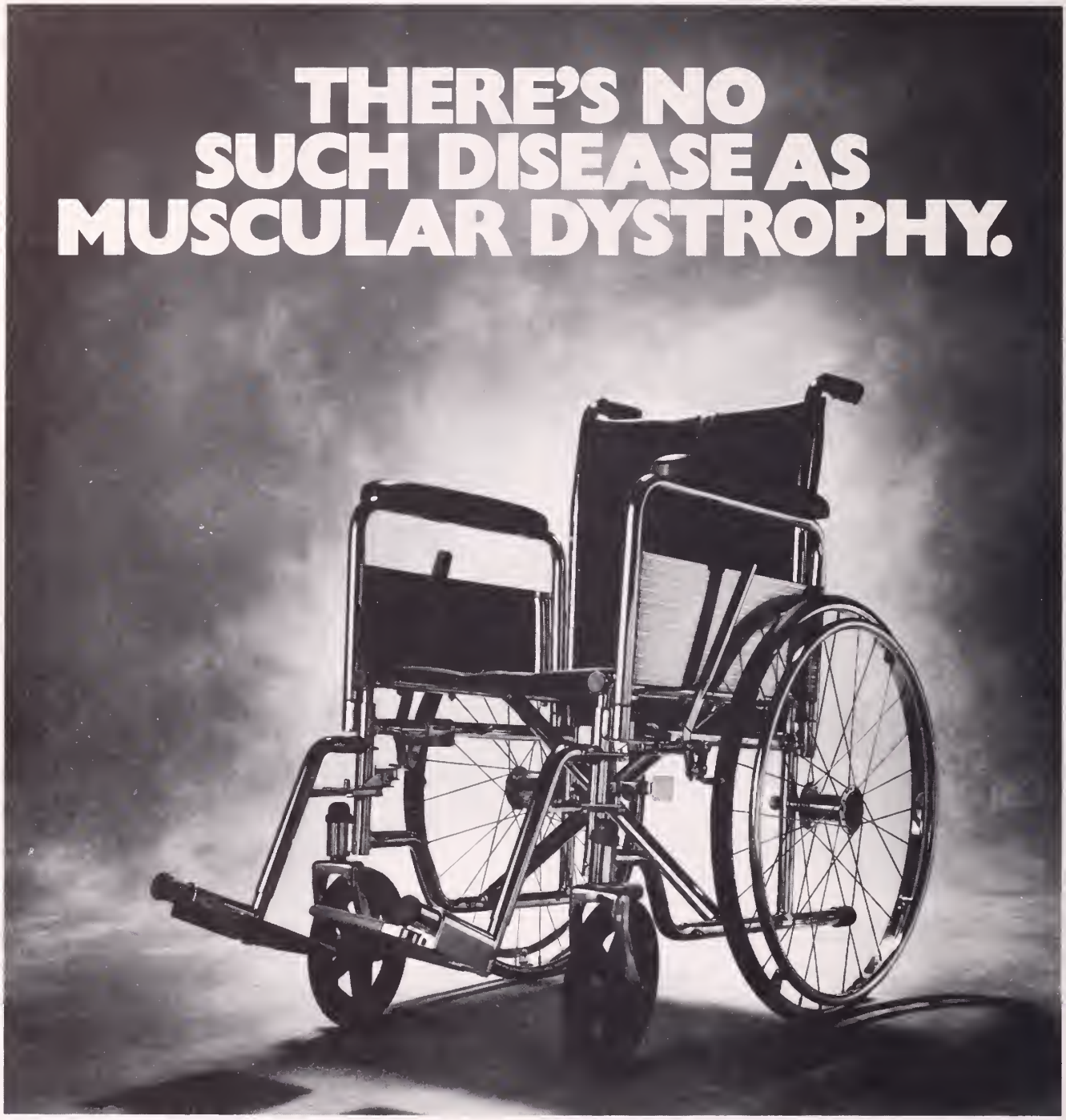

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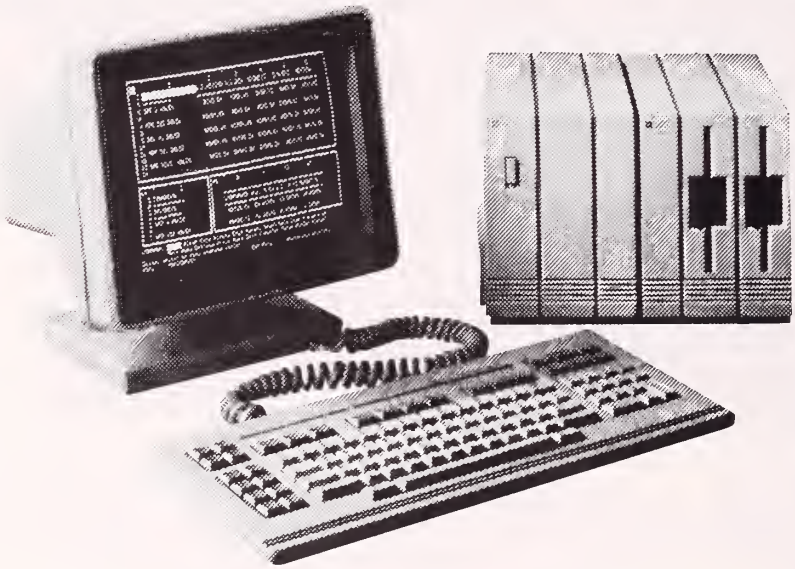

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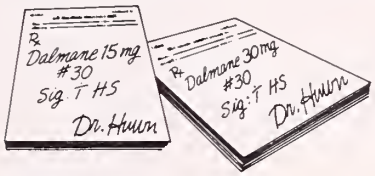

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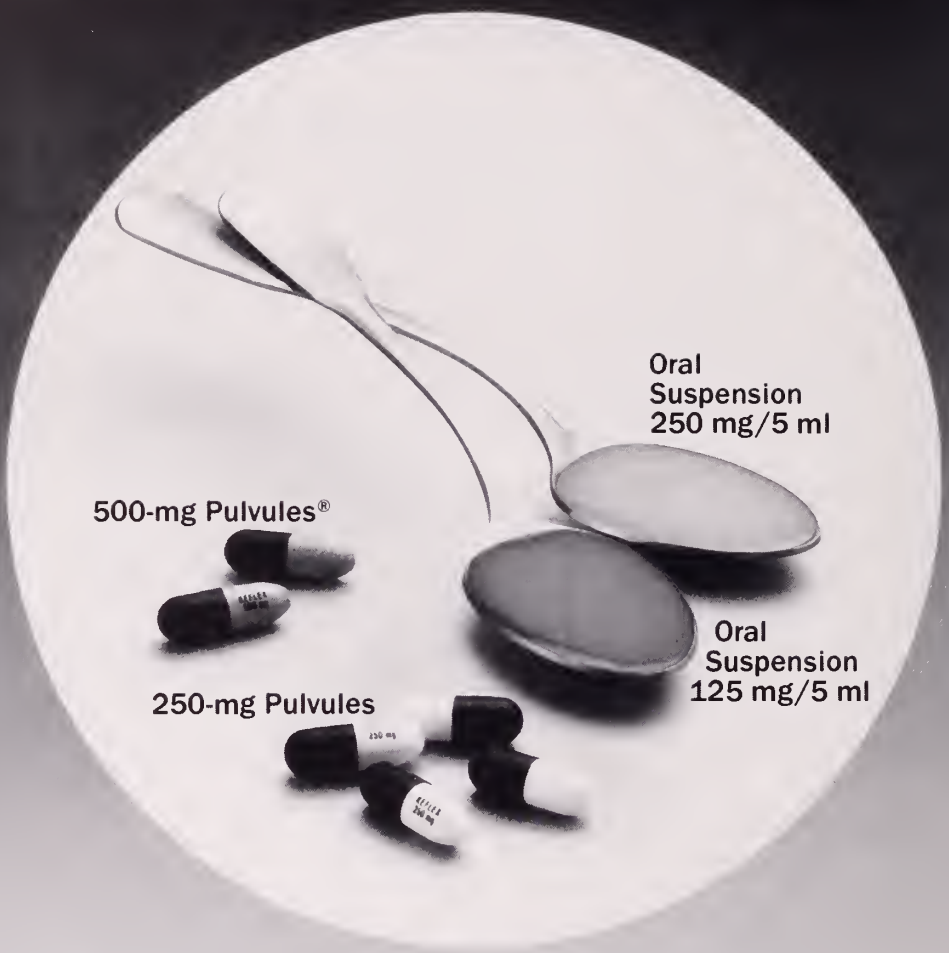

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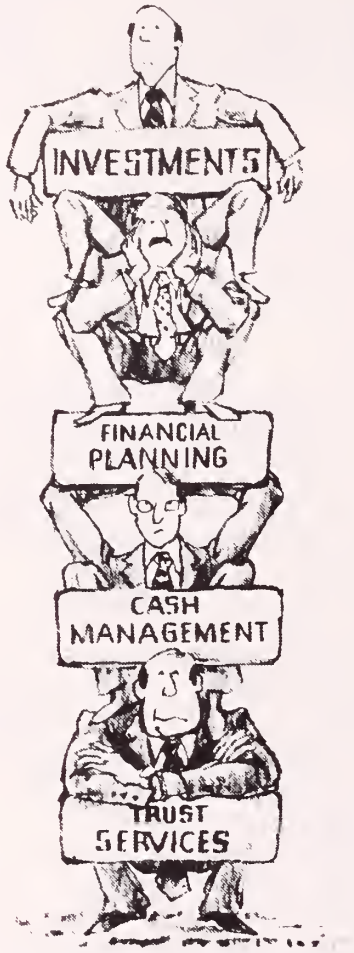

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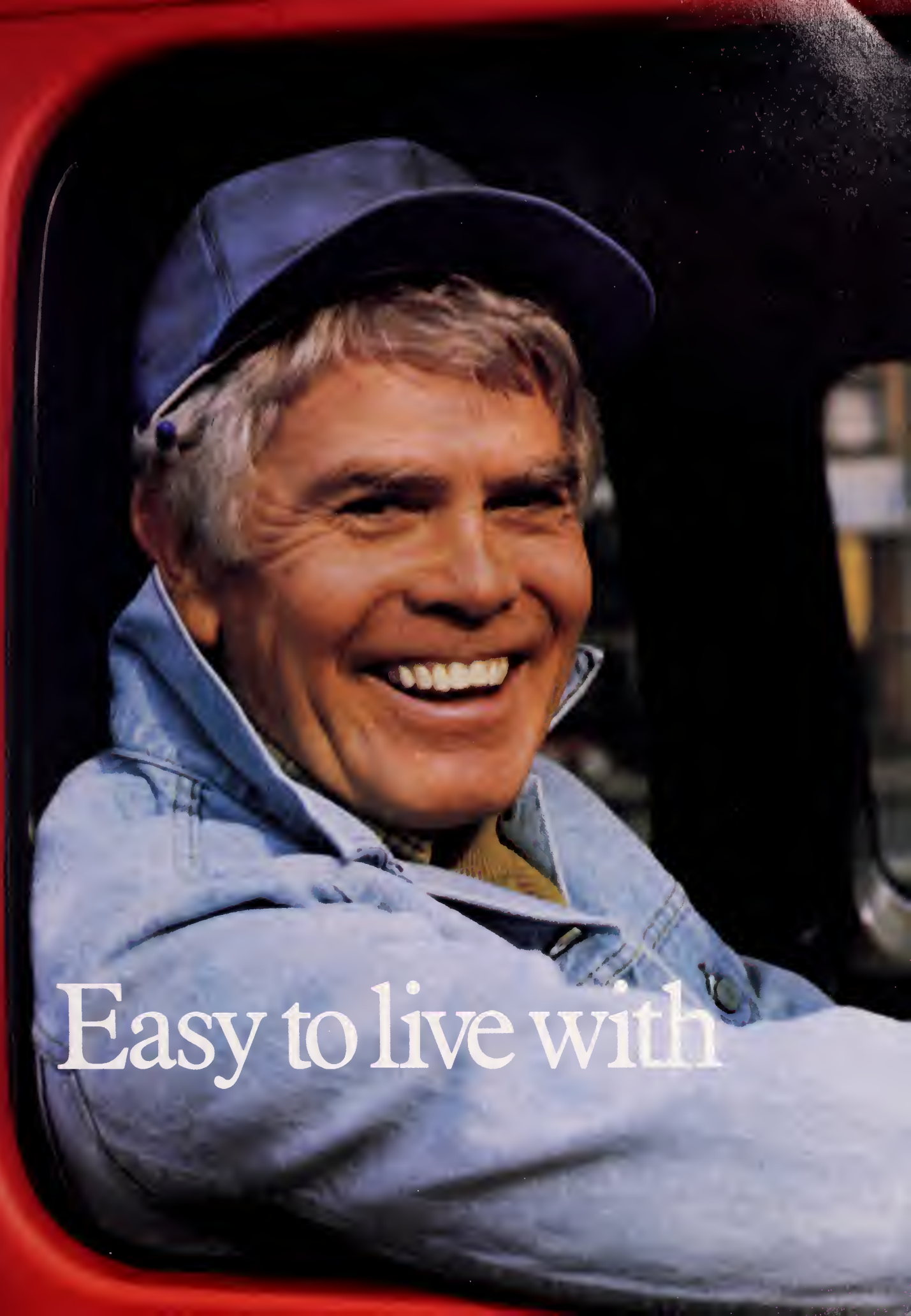
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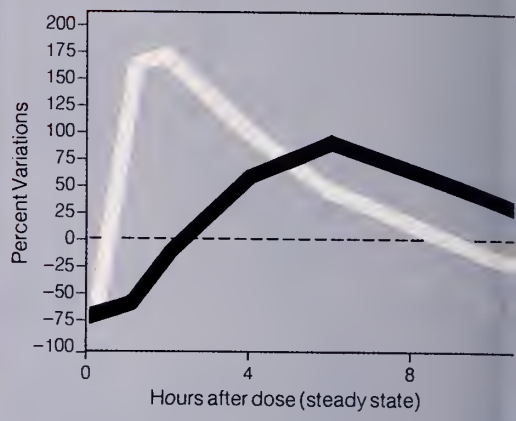

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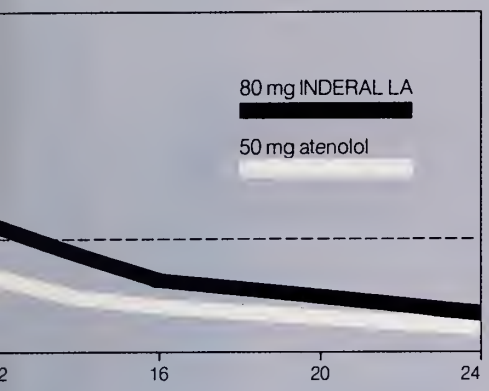

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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL® LA): Propranolol is contraindicated in, 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL® LA): CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

> IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following *abrupt* discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution, since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL® LA): GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS. Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs, such as reserpine should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY. Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS. Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

Hydrochlorothiazide: GENERAL. Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY. Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS. Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE. Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL® LA): Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular. Bradycardia; congestive heart failure; intensification of AV block; hypotension; paresthesia of hands; thrombocytopenic purpura; arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue, reversible mental depression progressing to catatonia, visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place; short-term memory loss, emotional lability; slightly clouded sensorium; and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation; mesenteric arterial thrombosis, ischemic colitis.

Allergic. Pharyngitis and agranulocytosis; erythematous rash, fever combined with aching and sore throat; laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous. Alopecia, LE-like reactions; psoriasiform rashes; dry eyes; male impotence; and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:

Gastrointestinal: Anorexia; gastric irritation, nausea, vomiting, cramping, diarrhea, constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis; sialadenitis.

Central Nervous System. Dizziness, vertigo; paresthesias; headache; xanthopsia.

Hematologic: Leukopenia, agranulocytosis; thrombocytopenia; aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity, rash; urticaria; necrotizing angiitis (vasculitis, cutaneous vasculitis); fever; respiratory distress, including pneumonitis; anaphylactic reactions.

Other: Hyperglycemia; glycosuria, hyperuricemia, muscle spasm; weakness; restlessness; transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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1. Data on file, Ayerst Laboratories. **2.** Ravid M, Lang R, Jutrin I: The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985;145:1321-1323. **3.** Sumiye L, Vivian AS, Frisof KB, et al: Potassium loss associated with hydrochlorothiazide versus chlorthalidone. *Clin Ther* 1981;4:308-320. **4.** Ram CVS, Garrett BN, Kaplan NM: Moderate sodium restriction and various diuretics in the treatment of hypertension. *Arch Intern Med* 1981;141:1015-1019.

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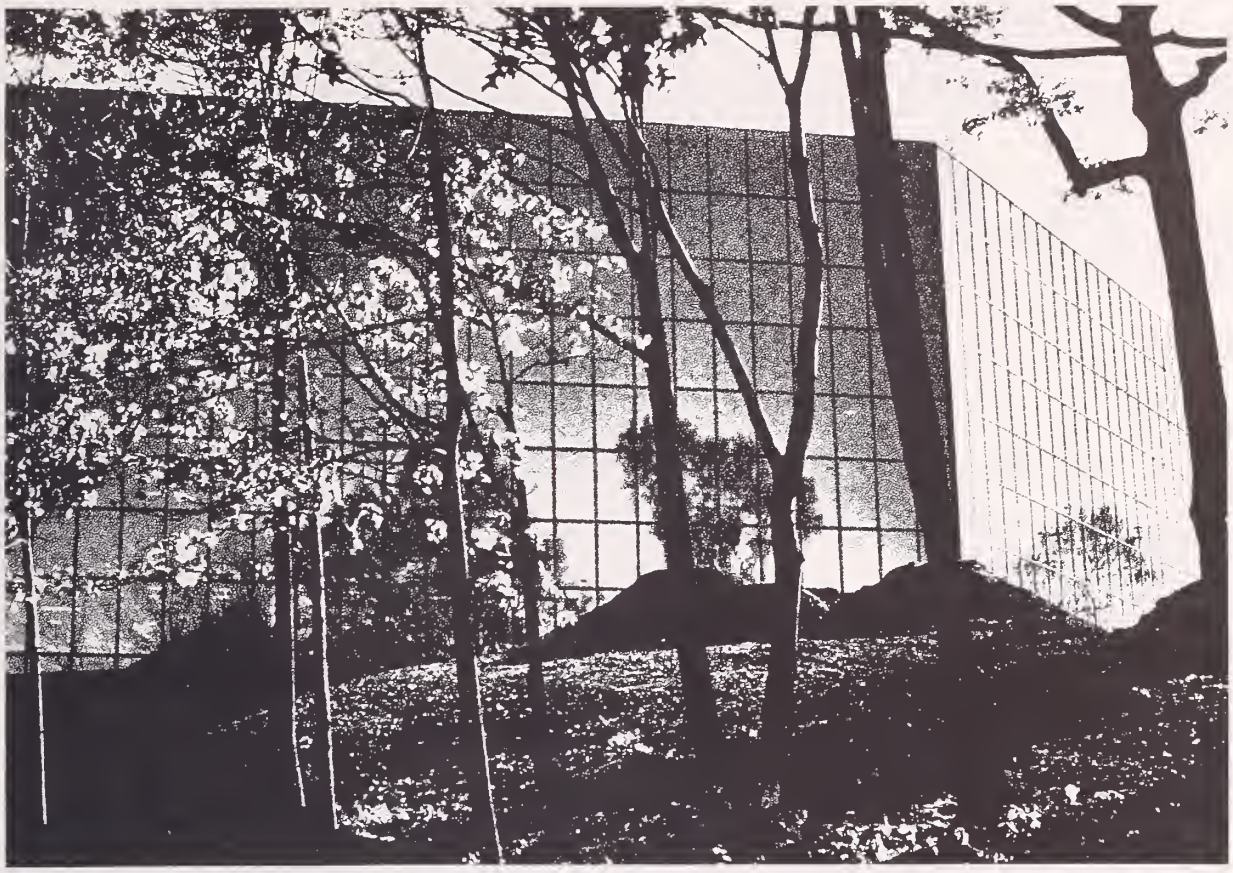

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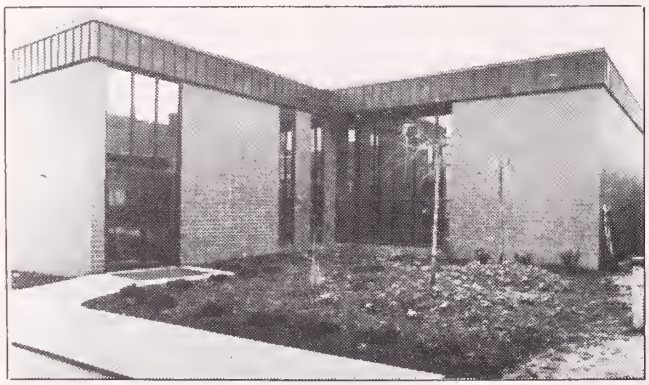

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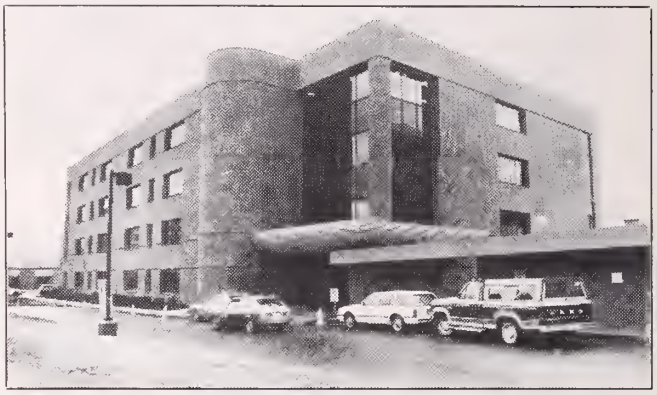

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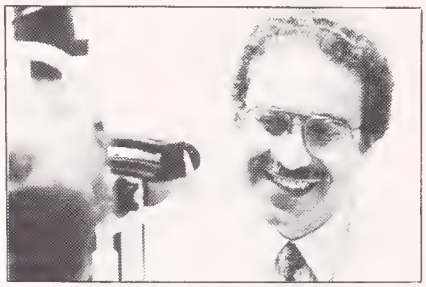

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Contraindications: Severe left ventricular dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (except in patients with a functioning artificial ventricular pacemaker), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction < 30% or moderate to severe symptoms of cardiac failure) and in patients with any degree of ventricular dysfunction if they are receiving a beta blocker. (See *Precautions.*) Patients with milder ventricular dysfunction should, if possible, be controlled with optimum doses of digitalis and/or diuretics before ISOPTIN is used. (Note interactions with digoxin under *Precautions.*) ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild and controlled by decrease in ISOPTIN dose). Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. 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Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. 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One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C*: There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported. (See *Warnings*.) 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Fatal Intracranial Hemorrhage Secondary To Isoimmune Thrombocytopenia

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Thrombocytopenia is a problem frequently encountered by physicians caring for neonates. We report a case of massive fetal intracranial hemorrhage secondary to isoimmune thrombocytopenia, and discuss the implications for future obstetric care for couples at risk for this complication.

Case Report

A full-term female infant was born to an 18-year-old primagravid mother whose medical and obstetric history and physical examination were unremarkable. There were no labor complications until the second stage, when the fetal heart rate dropped to 80. Vacuum extraction was applied and the infant was delivered smoothly, with Apgar scores of eight and nine at one and five minutes, respectively. The delivering physician noted petechiae over the infant's trunk immediately after birth. The infant seemed otherwise normal, but over the next 12 hours became increasingly lethargic and pale. A platelet count done at 12 hours of age was 15,000/ul. The infant was transferred to West Virginia University Hospital for further evaluation.

On arrival, the anterior fontanelle was tense and bulging; the infant's pupils were fixed in middilation. Doll's eyes and spinal cord reflexes were intact, but the infant was otherwise unresponsive. There were no physical stigmata to suggest either an intrauterine viral infection or a dysmorphic syndrome which might explain the thrombocytopenia.

Emergency CT scan showed extensive extravasation of blood in the subarachnoid and subdural spaces, as well as intraparenchymal blood, and a massive, right-to-left shift of the midline structure (Figure 1). Neurosurgical consultation was obtained, but intervention was felt to be unwarranted because of the severity of hemorrhage and the infant's dire condition. The infant died from brainstem compression shortly after this. Autopsy revealed intracranial hemorrhage as delineated by the CT scan (Figure 2). The remainder of the autopsy revealed no abnormalities. In particular, there were no gross or microscopic findings suggestive of congenital viral infections, and bone marrow megakaryocytes were normal. Viral titers and cultures for cytomegalovirus, rubella and enteroviruses were negative.

The infant's mother was closely questioned for a history of thrombocytopenia, but none was elicited. Blood samples were drawn from each parent for platelet count and antibody determination. Platelet counts were normal for each parent. The father's serum contained no anti-platelet antibodies; the mother's serum contained an antibody which reacted against the father's platelets, but not against her own. The parents were counseled that they appear to have differing

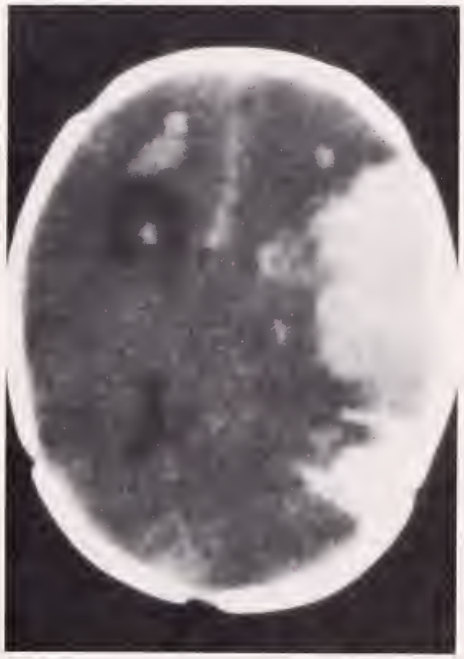

Figure 1. CT Scan showing massive subdural and intraparenchymal hemorrhage with marked displacement of midline structures.

Figure 2. Infant's brain at autopsy demonstrating intraparenchymal blood corresponding to the CT Scan. The destruction of brain substance is also seen.

platelet types, the mother being negative and producing anti-platelet antibodies against positive platelets. They therefore have a high (75 per cent) likelihood of future pregnancies resulting in a fetal/maternal platelet incompatibility, and cesarean section was recommended for future pregnancies.

Discussion

Normal-term and premature infants have platelet counts equivalent to those of older children and adults. Counts of less than 150,000/mm^3 constitute thrombocytopenia. Abnormally low platelet counts can be due to either excessive destruction, inadequate production, or a combination of the two. The major etiologies of neonatal thrombocytopenia are outlined in the Table.

The most common offending antigen causing isoimmune thrombocytopenia is the anti-PL^{A1} antibody.

A pregnant mother may have anti-platelet antibodies in her serum, which, if of the IgG class, may cross the placenta and cause fetal/neonatal thrombocytopenia. Passive fetal/neonatal thrombocytopenia refers to situations where a maternal disorder such as idiopathic thrombocytopenic purpura (ITP) or systemic lupus erythematosis stimulates the maternal immunologic system to produce anti-platelet antibodies reactive against her own as well as fetal platelets. The fetus then passively receives these antibodies, although it plays no active role in stimulating their production. Active, or isoimmune thrombocytopenia, is analogous to Rh isoimmunization of red blood cells. Fetal and maternal platelets are of differing "types," and fetal platelets entering the maternal circulation stimulate maternal antibody production. These antibodies react against fetal, but not maternal, platelets.

TABLE

Major Etiologies of Neonatal Thrombocytopenia

Decreased Production
Thrombocytopenia with Absent Radii
Bone Marrow Infiltration/Failure
Fanconi's Anemia
Other Dysmorphology Associated wtih Thrombocytopenia
Increased Destruction
Transplacental IgG
Isoimmune
Autoimmune
Thrombotic Consumption
Disseminated Intravascular Coagulation
Necrotic Tissue
Indwelling Vascular Catheters
Angiomata (Kasabach-Merritt Syndrome)
Infections
Bacterial
Viral
Miscellaneous
Maternal Hypertension/Preeclampsia Associated with Exchange Transfusions
Phototherapy
Polycythemia

The most common offending antigen causing isoimmune thrombocytopenia is the anti-PL^{A1} antibody.[2] Approximately 95 per cent of persons are positive at the PL^{A1} allele, and five per cent negative. A negative woman mating with a positive male has at least a 50-per cent chance of producing a positive infant with the potential for isoimmunization. This may take place in the first pregnancy, as up to 50 per cent of affected infants have been born to primagravidas.

Affected infants present with a generalized petechial rash, purpura, or even large echymotic areas over the presenting part. Large cephalohematomas are also common. Platelet counts in this disorder are extremely low; they are nearly always below 30,000/ul and occasionally as low as 1000/ul. Jaundice is common as a result of the echymosis. The liver and spleen are generally not enlarged, which serves to distinguish this disorder from other conditions such as erythroblastosis or congenital viral infections.

No Reason to Suspect

The most feared complication is that of a massive intracranial hemorrhage, as occurred in this case. This usually occurs during the routine vaginal delivery of an infant for which there was no "a priori" reason to suspect isoimmunization such as those born to primagravidas or to women with previously normal children. Intracranial hemorrhage should be suspected in any thrombocytopenic infant who becomes lethargic, develops seizures, or shows signs of increased intracranial pressure such as a tense fontanelle. These infants should be quickly transported to a tertiary neonatal center where neurosurgical intervention may be undertaken.

The workup of the thrombocytopenic infant leading to the diagnosis of isoimmunization consists primarily of excluding other causes of thrombocytopenia. A careful maternal history and physical examination of the infant (and occasionally of the placenta for chorioangioma) will exclude many of the disorders listed in the Table. The mother should always be questioned closely for a history of a low platelet count, indicative of possible maternal ITP. A maternal platelet count should also be obtained, as ITP may be sub-clinical, manifested in the mother only as a moderately low platelet count.[3] If the maternal history and platelet count make ITP unlikely, the infant may be given 10-20 cc/kg transfusion of platelet concentrate obtained from a random donor. Because 95 per cent of individuals are positive for PL^{A1}, the transfusion will almost certainly be of positive platelets, which will be rapidly destroyed if the infant's serum contains anti-platelet antibodies. After demonstrating a rapid (less than 12 hours) fall in the post-transfusion platelet count, the infant may then be given a transfusion of platelets obtained from the mother or another donor with known PL^{A1} negative platelets.[4] If the platelet count remains normal after this transfusion, a presumptive diagnosis of isoimmunization can be made.

The workup of the thrombocytopenic infant leading to the diagnosis of isoimmunization consists primarily of excluding other causes of thrombocytopenia.

75-Per Cent Recurrence

Reaching the proper diagnosis is of more than academic interest, as it is estimated that 75 per cent of subsequent pregnancies for a woman who has delivered one affected infant will be similarly affected. As stated previously, the greatest risk to the thrombocytopenic fetus/neonate is during vaginal delivery (no matter how routine) which accounts for most of the overall 15-per cent mortality in this disorder. Thus, for mothers who have had an affected infant, regardless of how mildly affected, it seems prudent to recommend cesarean section for future pregnancies. At present, there are no prenatal serologic titers which have proved useful to identify mothers carrying affected infants. A few centers are utilizing fetal scalp platelet counts (analogous to fetal scalp pH) obtained as early as possible in labor as a guide to the need for cesarean section. This procedure, however, should still be regarded as experimental and relied upon only in centers experienced in its use.

Thus, for mothers who have had an affected infant, regardless of how mildly affected, it seems prudent to recommend cesarean section for future pregnancies.

If the infant does not suffer severe complications during delivery, the prognosis is very good. Late complications are rare, even with very low platelet counts. The disorder is self-limited, and the platelet count gradually rises as the maternally derived antibodies, with a half-life of 30 days, are removed from the infant's serum. Corticosteroids have not been found to be helpful, nor have exchange transfusions. The most logical and beneficial therapy consists of repeated transfusions of maternal platelets, but these are not needed unless the platelet count falls to less than 10,000 to 20,000/ul or if there are signs of overt bleeding. In severely affected infants, these transfusions should not have to be given more often than every three to five days, as the normal platelet half-life is eight days. A requirement for more frequent transfusions should make one suspect another disorder causing excessive destruction of the transfused platelets.

In summary, isoimmune thrombocytopenia is a relatively common cause of neonatal thrombocytopenia. It can lead to severe morbidity and mortality, nearly all as a result of bleeding due to birth trauma. These complications can be prevented by offering cesarean delivery to mothers known to be at risk for delivering an affected infant. At present, however, there is no way to identify at-risk women who have not had a previously affected infant.

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Snoring And Related Problems: Surgical Correction

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Numerous medical therapies have been utilized in the treatment of snoring and obstructive sleep apnea with unpredictable efficacy. Since its introduction in 1981, palatopharyngoplasty has become an alternative surgical approach to permanent tracheostomy in the treatment of obstructive sleep apnea syndrome. Palatopharyngoplasty deals with the problem directly by eliminating redundant palatopharyneal mucosa, thereby markedly decreasing upper airway turbulence.

This paper reports the results of 11 patients who underwent palatopharyngoplasty alone or in conjunction with other upper airway procedures to eliminate upper airway turbulence. Palatopharyngoplasty appears to be an effective treatment for snoring and obstructive sleep apnea with 9 of 11 or 82 per cent of these patients being cured or markedly improved.

Snoring, the lay term for obstructive sleep breathing, is one of man's most annoying habits. Loud snoring can be highly disruptive and may influence the entire household and family social structure. The loud snorer is frequently the object of ridicule from family, friends, and perhaps business associates. Snoring is certainly not a rare phenomenon. Forty-five per cent of the adult population snores at least occasionally. Approximately one out of every four patients snores habitually. The likelihood of developing a significant snoring problem appears to increase with age and obesity. It also appears to affect males more frequently than females.

Snoring is primarily an inspiratory noise produced by vibration of the soft palate and tonsillar pillars with partial airway obstruction. This inspiratory noise is the result of airway turbulence in the oropharyngeal aperture, causing soft palate vibration.[16] Snoring is thought to begin during light sleep and becomes stronger and more continuous in both non-REM and REM sleep.[6,7]

Numerous devices have been proposed to alleviate snoring. These include sewing a tennis ball into a pocket on the back of the pajamas, chin and headstraps, cervical collars, and various electrical devices. None of these

methods has gained widespread acceptance.

There appears to be a close relationship between snoring and obstructive sleep apnea syndrome. In fact, it is often difficult to define a clear line between trivial snoring and life-threatening obstructive sleep apnea syndrome. Snoring may be the earliest and most consistent symptom of obstructive sleep apnea and should be considered a prime indicator of this disease entity.[7]

Sleep apnea is defined as cessation of oronasal airflow lasting at least 10 seconds. A diagnosis of Sleep Apnea Syndrome requires the recording of at least 30 apneic episodes observed during seven hours of REM and non-REM sleep.

Two Major Types

Two major types of sleep apnea syndrome have been described: obstructive sleep apnea and central sleep apnea.[2] The obstructive type is usually characterized by turbulent airflow resulting in partial or complete blockage of the upper respiratory tract during sleep. It is this blockage of the upper respiratory tract during sleep which disrupts the normal sleep pattern resulting in excessive daytime sleepiness. Central sleep apnea is usually not associated with airway blockage; instead, it is marked by the loss of regulation of breathing during sleep. Mixed apnea is a term denoting sleep apnea caused by central and obstructive factors. The large majority of patients with sleep apnea syndrome display a predominance of obstructive and/or mixed apneic episodes.

The pathophysiologic consequences of obstructive sleep apnea have been well described.[5] Systemic sequelae of obstructive sleep apnea include pulmonary hypertension, subsequent right-sided heart failure, congestive heart failure, and cardiac arrhythmias. Sudden death in sleep has been reported and may be due to these cardiac arrhythmias. Psychosocial and behavioral consequences of obstructive sleep apnea include excessive daytime sleepiness, deterioration of work performance, mental dullness and memory impairment, irritability, depression, impaired spouse and family relationships, and sexual impotence.

Definitive diagnosis of sleep apnea requires polysomnography which is a multichannel recording of various body functions during sleep. Polysomnography includes measurements of eye movement, muscle activity, brain wave activity, heart rate, oral and nasal airflow, respiratory effort, and per cent of oxygen saturation of the blood as measured by ear oximetry during sleep. Polysomnographic recordings of a normal subject during sleep show a regular tidal volume, no paradoxical breathing, and a regular heart rate of 60-80 beats per minute. A patient who snores without obstructive sleep apnea usually has periodic increases in tidal volume, some paradoxical respiration with increased respiratory effort, but no significant changes in heart rate. The obstructive sleep apnea patient shows tidal volumes intermittently dropping to zero, extreme paradoxical movements, and cyclic bradytachycardia.[15]

Snoring may be the earliest and most consistent symptom of obstructive sleep apnea and should be considered a prime indicator of this disease entity.

Palatopharyngoplasty

Numerous medical therapies have been utilized in the treatment of obstructive sleep apnea, with unpredictable efficacy, but surgical intervention has become the preferred treatment. Tracheotomy remains the most reliable treatment for obstructive cases because it circumvents those areas where air turbulence is present. The morbidity of long-term tracheotomy is not insignificant, however, and it is this fact that has lead to surgery designed to decrease airway turbulence. Palatopharyngoplasty deals with the problem more directly by eliminating the redundant palatopharyngeal mucosa, thereby markedly decreasing air turbulence. This decrease in airway turbulence improves or eliminates snoring as well.

Palatopharyngoplasty has been reported to be effective in eliminating the need for permanent tracheotomy in many patients.[2,4,5,15,16]

Palatopharyngoplasty was first introduced in 1981 as an alternative to tracheotomy.[2] It is interesting to note, however, that palatopharyngoplasty originally was conceived for treatment of snoring alone. In this procedure, the entire thickness of the posterior margin of the soft palate is resected, including about half of the anterior tonsillar pillar. Removal of almost all the anterior tonsillar pillar, leaving a small tissue margin for suturing, is followed by removal of the tonsils or mucosa of the tonsillar fossa. The remaining posterior tonsillar pillar is then pulled forward to meet the resected edge of its anterior counterpart and sutured to that structure, thus eliminating redundant mucosa of the posterolateral pharyngeal wall. Palate lengths vary, and thus extent of the surgical resection varies from patient to patient. The amount of palate resected at the midline is usually about 1.5 cm., as described by Simmons *et al.*[16] The goal of palatopharyngoplasty is to remove as much excess palatal tissue as possible, eliminating redundant palatopharyngeal mucosa, and thus creating a non-collapsing velopharyngeal space without causing permanent nasal regurgitation.

Purpose of WVU Studies

At West Virginia University Medical Center, Department of Otolaryngology, the authors undertook a study of patients with symptoms of snoring and obstructive sleep apnea. The purpose of the investigation was to determine the efficacy of palatopharyngoplasty alone, or in conjunction with other upper airway procedures, in eliminating airway turbulence during sleep and obstructive sleep apnea.

Subjects

Between February, 1984, and January, 1985, 14 patients with symptoms of upper airway turbulence during sleep presented to the WVU otolaryngology clinic. Subsequently, one patient expired of unrelated causes and two were lost to followup. The sample presented, therefore, consists of 11 subjects, seven males and four females. Ages range from 33 to 53 years with a mean of 45.5 years. Ten

of the patients are married and one is divorced.

Materials and Methods

All patients were evaluated with preoperative polysomnography and a complete otolaryngologic examination with attention given to the presence of nasal obstruction, the size, length, and redundancy of the soft palate and uvula, presence or absence of tonsils, patency of the hypopharynx, size and positioning of the mandible, and presence or absence of macroglossia. In addition, two patients with obstructive sleep apnea have undergone postoperative sleep studies for objective evaluation of effectiveness of treatment.

Six patients underwent palatopharyngoplasty only, while the remainder received that procedure in conjunction with additional surgery. These additional procedures included tonsillectomy, a temporary tracheotomy, septoplasty, and bilateral inferior turbinoplasties.

Following treatment, five of the 11 patients (45 per cent) stated that their snoring was eliminated completely, with an additional four of 11 (36 per cent) gaining some measure of improvement.

Preoperative and postoperative questionnaires were distributed to all patients. The patients and their spouses were requested to evaluate the changes in their physical symptoms, social activities, and overall quality of life as a result of the surgical intervention. All discussed their feelings willingly with the authors, and results are reported as their subjective impressions of their condition. A minimum postoperative period of four months was maintained, with the interval ranging from four to 15 months.

Results

Preoperatively, all subjects reported that they snored while sleeping. All believe that they snored at least 75 per cent of their sleeping hours, with six of the 11 reporting continuous snoring. The majority of individuals had snored for at least five years, with four noting a history of 20 years or more. All 11 characterized their snoring as loud to extremely loud.

Several of the patients also reported morning headaches (5 of 11), trouble concentrating and remembering (5 of 11). One patient reported job difficulties stemming from his condition.

Five of the 11 patients experienced daytime hypersomnolence. None, however, scheduled sleep in the form of naps but reported incidents which occurred at unexpected times. Most such incidents proved embarassing, and some placed the patient or others at risk since they occurred during the operation of a motor vehicle.

Marital stress produced by disruptive sleep behavior was disturbing to the patient's lifestyle. Four of 10 (40 per cent) partners stated that this factor alone caused them to occupy separate bedrooms.

Post-Treatment Results

Following treatment, five of the 11 patients (45 per cent) stated that their snoring was eliminated completely, with an additional four of 11 (36 per cent) gaining some measure of improvement. Of the two patients who still snored, both considered their snoring to be extremely disruptive. Over 80 per cent (9 of 11) of patients therefore gained partial or complete relief.

Postoperatively, only two of 11 patients continued to have occasional morning headaches and trouble concentrating. Following surgery, daytime hypersomnolence ceased to be a problem for all but two patients. Those two individuals reported some improvement with involuntary sleep episodes reduced by approximately 70 per cent.

Of the 10 patients who were married, eight spouses reported that disruptive sleep behavior had lessened to the extent that they could now sleep comfortably in the same room with their partner.

Of the three patients diagnosed as having true obstructive sleep apnea, two underwent postoperative sleep studies. In the first case, the frequency and duration of apneic episodes was markedly reduced with the typical episode lasting less than 10 seconds, as compared to 45 seconds preoperatively. Postoperatively, oxygen saturation fell by as little as six per cent.

The second patient showed less dramatic improvement. He still suffered periods of shallow breathing correlated with oxygen per cent saturation levels falling from the mid 80s to the mid 40s. He did not completely obstruct his airway, however, and no cardiac arrhythmias were detected, in contrast to lengthy obstructive apneic episodes and cardiac irregularities preoperatively. The patient and his spouse related that his symptoms were much improved and expressed great satisfaction with the procedure.

Postoperatively, none of the patients experienced bleeding or infection. None complained of long-term nasal regurgitation or hypernasal voice. Three noted a dry mouth while sleeping, presumably due to mouth breathing, but none considered this a serious matter. The majority (91 per cent) of patients felt that the treatment offered had greatly improved the quality of their lives, and 82 per cent said that they would recommend it to others.

Discussion

Results from this investigation compare favorably with the findings of other workers.[1,5,15,16] Palatopharyngoplasty appears to be an effective treatment for snoring with nine of 11 or 82 per cent of WVU patients being cured or markedly improved. Survey of professional literature reveals that this procedure eliminates the symptoms of snoring in approximately 90 per cent of patients. Palatopharyngoplasty also has been effective in eliminating obstructive sleep apnea in approximately 50 per cent of patients. For the remaining 50 per cent, varying degrees of success have been achieved. In this study, one individual

Palatopharyngoplasty also has been effective in eliminating obstructive sleep apnea in approximately 50 per cent of patients.

with obstructive sleep apnea showed a complete absence of symptoms following treatment. A second patient still experienced episodes of shallow breathing, but the frequency and duration were reduced, and complete obstruction no longer occurred. The patient also related that his symptoms were much improved.

Reasons for failure to obtain complete success have been controversial. While surgical intervention offers hope for a number of individuals, no reliable indicator of success or failure of palatopharyngoplasty has been established. The search for further diagnostic techniques in addition to otolaryngologic examination and polysomnography is currently under way.

In an attempt to find reasons for failure of the procedures, Riley and his associates examined nine patients for whom palatopharyngoplasty had not been helpful. Using cephalometric x-ray analysis and fiberoptic examination, they found that all nine patients had a posterior airway space of less than eight mm, an aperture significantly smaller than that of subjects for whom the procedure was successful. The majority also had an inferiorly positioned hyoid bone.[10,12]

It is the conclusion of those authors that the restricted posterior airway space contributed significantly to the problem. Where such constriction exists, no amount of upper airway surgery will totally alleviate the problem. For these particular individuals, further surgical procedures, such as mandibular osteotomy and hyoid bone advancement may be appropriate.[8,9,10,12]

Evaluation of the patient presenting with symptoms of obstructive sleep apnea should include an initial cephalometric x-ray analysis. Cephalometric x-rays analyze dental and skeletal abnormalities, soft tissue structure, facial form, and are important in that they indicate maxillofacial problems which may be part of the obstructive sleep apnea problem.[10]

Based on this discussion, it is recommended that all patients with snoring and symptoms of obstructive sleep apnea undergo a complete otolaryngologic examination and polysomnography. In those patients with obstructive sleep apnea, cephalometric x-ray analysis should be utilized to determine if further sites of upper airway obstruction exist. This routine should help identify those patients to be recommended for palatopharyngoplasty and those for whom other surgical procedures would be more helpful.

While surgical intervention offers hope for a number of individuals, no reliable indicator of success or failure of palatopharyngoplasty has been established.

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Sublingual Hematoma: An Unusual Complication Of Heparin Anticoagulation

JACK E. RIGGS, M. D.
Associate Professor, Department of Neurology, West Virginia University School of Medicine, Morgantown

Non-traumatic sublingual hematomas have not been previously reported. The development of life-threatening sublingual hematoma in the setting of heparin anticoagulation is described, its management discussed, and its similarity to Ludwig's angina noted.

Sublingual hematomas are rarely mentioned in the literature, and no instance of a non-traumatic or spontaneous sublingual hematoma could be found.[1] The occurrence of sublingual hematoma associated with heparin anticoagulation is reported.

Case Report

An 86-year-old man was admitted to the hospital for evaluation of slurred speech, difficulty in swallowing, and "dizziness." He had had a right hemisphere cerebrovascular accident four years previously.

On initial examination his speech was so dysarthric as to be unintelligible, and his palate did not move. The remainder of his neurologic examination was normal. Head CT scan on admission demonstrated lucent areas in the left pons and right frontal lobe which were felt to represent areas of previous infarction.

Four hours after admission his neurologic status had markedly improved. His neurologic symptoms and signs were felt to represent brainstem ischemia. In an attempt to avert a threatened brainstem infarction, the patient was given an intravenous bolus of 5,000 units of heparin and started on a continuous infusion of heparin at a rate of 900 units/hr. Within six hours the patient developed a large sublingual hematoma and the heparin was discontinued. PTT at the time was markedly prolonged, greater than 90 seconds with a control of 19 to 27 seconds. Twelve hours later the tongue and the floor of the mouth were markedly elevated and swollen (Figure). His upper airway became acutely compromised and an emergency trachestomy was performed.

His subsequent hospital course was complicated by aspiration pneumonia and sepsis requiring antibiotic therapy; however, no infection developed in the sublingual space (Ludwig's angina). Three weeks later the hematoma was resolved, and the patient was weaned from the respirator. He was discharged from the hospital two months following admission.

Figure. Appearance of the mouth immediately after emergency tracheostomy. Note the markedly elevated and swollen tongue. The floor of the mouth was similarly swollen, ecchymotic, and actually protruded from the mouth. The patient was unable to close his mouth due to the swelling of the tongue and the floor of the mouth.

Discussion

Respiratory obstruction occurred precipitously in this man. In this regard, sublingual hematoma is very similar to Ludwig's angina in which the major reason for mortality is the high incidence of upper airway obstruction.[2] Ludwig's angina is a cellulitis involving primarily the floor of the mouth. The cardinal signs of Ludwig's angina are submandibular swelling, elevation of the tongue, and edema of the floor of the mouth.[3] Thus, by both outward appearance and major complication, sublingual hematoma and Ludwig's angina appear similar. As in Ludwig's angina,[4] preservation of an airway is the most critical therapeutic principle to observe in the management of sublingual hematoma. Finally, the sublingual space is yet another site at which hemorrhage may occur in the setting of anticoagulation.

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You Will Agree This Is A Crisis?

There has been a lot of discussion as to whether a medical liability crisis exists in West Virginia. Few would deny that one was created by the insurance industry's cancellation letters.

The insurance provisions of Senate Bill 714 which Governor Moore signed into law have obviously caused the insurance carriers in West Virginia much pain. It is important to note that this portion of Senate Bill 714 was promulgated entirely by the Legislature. The West Virginia State Medical Association did not participate.

Specifically, the carriers are upset over a provision which seems to limit their ability to deny renewal of liability contracts, a requirement for public hearings for rate increases exceeding 10 per cent, and a section which requires the reserved amount for suits to be divulged.

Their argument is that public hearings would be emotional and would lessen the industry's ability to make fair and timely rate adjustments. The revelation of reserved amounts for pending suits, they say, would violate an important client confidence since it would signal the carrier's assessment of the suit's significance.

It is difficult not to agree with their concern, but one wonders if the abrupt cancellation of policies prior to a good faith effort to obtain legislative relief in a special session may not create an aura of mistrust which will persist after this crisis is resolved.

At a recent meeting of the Council, the major concern of our physicians was directed toward providing medical care to our patients in the unlikely event that we might find ourselves with no insurance coverage in early June. Practicing "bare" is not a happy prospect, and one which not many physicians would undertake without some assurance that the potential for suits had been lessened.

Whatever the end result of this crisis, it points to the need for a lasting solution to the inequities in our civil justice system. It is in such a shambles that further crises are inevitable. Only the West Virginia Legislature holds the tools for the solution through the enactment of further effective tort reform measures. If they fail, West Virginia will become one more voice in the growing chorus demanding congressional action.

David Z. Morgan, M. D., *President*
West Virginia State
Medical Association

Prepare For Annual Meeting Now!

Get ready, get set, let's go! Let's have another "rousing" session of the House of Delegates in 1986. We have heard it repeated many times since last August that there was more involvement in the House during the sessions last year than could ever be remembered.

The WVSMA's 119th Annual Meeting will be held at The Greenbrier in White Sulphur Springs August 12-17. The first session of the House will be held on Wednesday afternoon, August 13, and on Saturday afternoon, August 16, during the meeting.

Here's what you and your county medical society can do to prepare for the sessions.

Elect your Delegates and Alternates and submit their names to the WVSMA so that credentialing can be accomplished prior to the opening of each session of the House of Delegates.

Earlier in April, WVSMA staff verified membership in component societies, and secretaries were informed concerning the number of Delegates and Alternates each society was entitled to elect.

Each component society is entitled to elect and send to the House of Delegates each year one Delegate who shall be an officer of the society and one additional Delegate for every twenty (20) members or fraction thereof. A corresponding number of alternates shall be elected.

Election of officers will take place during the second session of the House on Saturday. In 1986, WVSMA offices to be filled include President Elect, Vice President, Treasurer and the AMA Delegate and Alternate. The Committee on Nominations will consider and recommend to the House, prior to the election of officers, the names of two nominees for all officers except President Elect. Nominations also can be made from the floor.

Membership in component societies needs to give some serious thought to the election of officers. These are the men and women who serve as your leadership throughout the coming year.

And, don't forget the election of Councilors. Under the Association's Constitution and Bylaws as adopted during the Annual Meeting last year, all Councilor Districts are to be considered as new districts. At this year's meeting — held in an even-numbered year — Councilors from the even-numbered districts will be up for election. These are important positions. The Council is the executive body of the House of Delegates, and between meetings exercises all the powers conferred on the House. Be prepared. Designate a specific Delegate or Alternate, whom you know will be present during the second session of the House, to stand up and make the nomination for Councilor from your District.

Changes *can* be made the democratic way. In this era of change, membership should be considering matters of importance to the medical profession. If you want changes made in your Association, prepare a resolution and submit it to the Committee on Resolutions through your county medical society.

Resolutions must be in the hands of the Executive Director at least two weeks before the Annual Meeting, or by July 29; otherwise, unanimous consent of the House will be required for presentation. Secretaries of component societies were informed of this date in a communication mailed early in April.

The Committee on Resolutions will hold an open hearing on Thursday, August 14, at 5 P.M. to consider resolutions, duly presented during the first session of the House, to afford any member of the Association the opportunity to testify for or against a resolution. In closed session, the Committee will prepare recommendations to adopt, alter, amend or disapprove the resolutions in a report prepared for presentation during the second and final session of the House on Saturday afternoon.

This year, let's have a full House.

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

Our Readers Speak

The Second Law Of Thermodynamics And The Sermon On The Mount

The second law of thermodynamics states that the sum of the entropies of a given system and its surroundings must increase in order for a process to occur spontaneously. The decrease in entropy occurring in the formation of a highly ordered biological system is possible due to the corresponding increase in entropy in its surroundings.[1]

A former minister of mine outlined in a letter a sermon he had delivered which indirectly addressed this issue. It concerned the Sermon on the Mount (Matthew, Ch. 5) which states in part "Ye are the salt of the earth . . ." The analogy was drawn to salt as an aseptic agent which cannot cure corruption but prevents its spread; that persons living in the midst of material things should strive to prevent the spread of corruption. The conclusion was that God's children must live to hold corruption in check.[2]

For the physician, health professional and layman alike, the consequences of a burgeoning birth rate, mass consumption with resultant pollution, to mention but two biologic processes, are obvious. Action is being taken to address some of the issues confronting us, but the endeavor should be intensified to prevent the inevitable results from occurring.

The implications of the second law of thermodynamics are clear: what we all have on our side to affect it ultimately is time. Meanwhile, we can endeavor to hold it in check.

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2) Watkins Rev. KG. Letter. Feb 13, 1986.

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Editor's Note: We invite anyone who wants to dispute this to please write.

President Morgan Praised For Legislative Work

I would like to thank Dr. David Z. Morgan for all the work he did in our behalf in bringing about reform in medicine during the last West Virginia legislative session. Doctor Morgan and other members of our medical organization were in the legislative halls daily. They quietly, persuasively and forcibly presented our position. While the final bill was not entirely to our liking, it represented all we were going to get from the current Legislature.

While we certainly do not think the present bill represents sufficient relief, I have confidence that a truly meaningful reform will eventually, and soon, come about in West Virginia. The events both nationally and in West Virginia will compel a revamping of the current method of resolving civil disputes.

When professional services, new product development, and business enterprise come to a screeching halt, and the public liability premiums for business premises and real estate become unaffordable, and when public safety and government function become impaired, the next great layer of reform will come about. Doctor Morgan's tireless effort and accomplishment will anticipate the next layer of tort relief.

Dominic Gaziano, M. D.
3100 MacCorkle Avenue, S.E.
Charleston, WV 25304

Veto Not Requested By Insurance Lobbyist

An encounter with a physician friend today prompts me to write this letter in order to clear up what may be a widely held misunderstanding concerning my position on Senate Bill 714.

I do not represent any insurers writing professional malpractice insurance and, accordingly, did not at any time request Governor Moore to veto the bill. As an insurance lobbyist, I was contacted by reporters asking my opinion of the bill, and when that opinion was coupled with stories they had obtained regarding insurers requesting a veto, it appeared from newspaper accounts that I was urging its veto.

My opinion regarding tort reform in the bill is as reported: I do not believe it contains any meaningful tort reform. If the Medical Association believes that it does, we merely have a difference of opinion. I do have a personal concern over the bill, and that is its possible effect on the availability of liability insurance for all professionals, including me. The trial lawyers were not content to meddle in just medical malpractice insurance matters since they made the insurance provisions of the bill applicable to lawyers, architects, accountants, insurance agents, corporate officers and directors, etc., and I suppose the ultimate irony will be when the trial lawyers, too, are unable to procure liability insurance. Perhaps then we can all see some true tort reform.

I hope this clarifies my supposed involvement in your legislation, and I ask that you convey this to the medical community in some fashion such as publication of this letter in your Journal.

John C. Lobert, Attorney
405 Capitol Street
Charleston, WV 25322

Non-Diabetic Endocrine Emergencies, Nutrition

Speakers To Give Papers At WVSMA Convention

"Non-Diabetic Endocrine Emergencies" and "Facts and Fads in Nutrition" will be among 10 papers to be presented during the WVSMA Annual Meeting August 12-17.

Irma H. Ullrich, M. D., Professor of Medicine, Section of Endocrinology/Metabolism, West Virginia University, Morgantown, will give the first paper during the second general scientific session Friday morning, August 15.

C. Lawrence Kien, M. D., Ph.D., also of Morgantown, will talk on nutrition during the Saturday morning session. He is WVU C. E. Compton Professor of Nutrition and Chief, Section of Clinical Nutrition; and Professor, Department of Pediatrics and Biochemistry.

The opening scientific session will be Thursday morning immediately following 9 A. M. opening ceremonies.

The 1986 convention site will be the Greenbrier in White Sulphur Springs.

Also scheduled, with the speakers to be announced, are papers on headaches, strict diabetic control, and arthritis.

Physical Education Post

Doctor Ullrich, who joined the WVU staff in 1974, also serves as Adjunct Professor of Physical Education — Medical Advisor for the Human Performance Laboratory at WVU.

In 1980 she was the recipient of the Outstanding Faculty Award, Department of Medicine, and the Resident's Teaching Award, Department of Family Practice.

Irma H. Ullrich, M. D.

C. Lawrence Kien, M. D.

Doctor Ullrich, who edits the "Medical Grand Rounds from West Virginia University Medical Center" articles in *The Journal*, was graduated from the University of Minnesota, and received her M. D. degree there in 1969. She did her postgraduate work at WVU and the Medical University of South Carolina.

She is the author or co-author of some 24 scientific articles, seven book chapters, and 27 abstracts.

Formerly on Wisconsin Faculty

Doctor Kien came to WVU in 1984 after serving on the faculty at the Medical College of Wisconsin for four years.

He holds a Ph.D. degree in nutritional biochemistry and metabolism from Massachusetts Institute of Technology (1977), having earned his M. D. degree in 1972 from the University of Cincinnati. He completed postgraduate work in pediatrics and nutrition at Montreal Children's Hospital, and The Children's Hospital Medical Center, Massachusetts General Hospital, and Shriners Burns Institute in Boston.

Doctor Kien is Consulting Editor in Nutrition Practice of Pediatrics for Harper & Row, and has done reviews for such journals as the *New England Journal of Medicine, Proceedings of the Society for Experimental Biology and Medicine,* and others.

The current recipient of a grant to study "Carbohydrate Energy Absorption in Premature Infants," he is the author or co-author of 32 scientific articles, seven book chapters and 32 abstracts.

Speakers and topics announced previously are:

Thursday morning: "Approach to the Solitary Nodule," Richard E. Kleinmann, M. D., Associate Professor of Medicine, WVU Charleston Division; and "Geriatric Hypertension," Frederick C. Whittier, M. D., Profes-

sor of Medicine and Chief, Section of Nephrology, WVU, Morgantown;

Friday Morning: "Polypharmacy and the Elderly," Thomas E. Finucane, M. D., Assistant Professor of Medicine, Division of Comprehensive Medicine, WVU, Morgantown; and "The Judicious Use of Blood and Blood Products," Mabel M. Stevenson, M. D., Director, Tri-State Red Cross Blood Services, and Clinical Professor of Pathology, Marshall University School of Medicine.

AMA President to Speak

It also was announced earlier that the AMA President Elect (who will be installed in June), Dr. John Coury, Jr., will address the first session of the WVSMA House of Delegates Wednesday afternoon, August 13. Doctor Coury, of Port Huron, Michigan, is a general and pediatric surgeon.

The convention schedule will begin with a 2 P. M. meeting of the Executive Committee on Tuesday, August 12, and the usual preconvention meeting of the Council at 9:30 A. M. Wednesday.

General scientific sessions will offer hour-for-hour Category 1 credit.

Dr. Charles E. Turner of Huntington will be inaugurated as President to succeed Dr. David Z. Morgan of Morgantown during the second and final House session Saturday afternoon.

The Annual Meeting of the Auxiliary, with Jeanny (Mrs. M. V.) Kalaycioglu of Shinnston in charge as President, again will run concurrently with the WVSMA convention.

Members of the Program Committee are Dr. John W. Traubert, Morgantown, Chairman; Doctor Kleinmann: and Drs. Marshall J. Carper, Charleston; Jose I. Ricard, Huntington: John A. Rizzo, Fairmont, and William N. Walker, Jr., Clarksburg.

Registration Fee Established

An Annual Meeting registration fee of $25 for all WVSMA members was established by the Council at its meeting April 13 to help offset convention expenses.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

May 1-3, Morgantown, Orthopedic Reunion Days

May 14, Charleston, 4th Annual West Virginia Conference on Infectious Diseases

May 16-18, Oglebay Park, Wheeling, Emergent Care of the Medical Patient

May 23-24, Morgantown, Annual Meeting, WV Affiliate: Am. Diabetes Assoc.

May 23-24, Morgantown, Health Officers Seminar

May 30-June 1, Morgantown, WV Academy of Otolaryngology Head & Neck Surgery Inc. & WVU Dept. of Otolaryngology Head & Neck Surgery 12th Annual Teaching Day

June 6-7, Morgantown, WV State Society of Anesthesiologists

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — May 15, "Evaluation & Treatment of Headaches" (speaker to be announced)

June 19, "Evaluation of Various Treatment Modalities for Pneumococcal Infections," Elizabeth Funk, M. D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A.M. — May 14, "Sleep Disorders," George Zaldivar, M. D.

June 11, "Review of Cardiac Arrhythmias," David Namay, M. D.

July 9, "Non-Invasive Techniques for Investigating Vascular Occlusive Diseases," Ali F. AbuRahma, M. D.

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — May 7, "Early Recognition of Diabetes Retinopathy & Latest Mobalities of Treatment,"* Robert O'Connor, M. D.

June 4, "Emergency Room Evaluation & Treatment of Alcohol-Related Illnesses & Injuries," Patricia Treharne, M. D.

July 2, "Initial Treatment of Stroke (CVA) and Subsequent Rehabilitation," A. L. Poffenbarger, M. D.

Madison, Boone Co. Health Dept. — Conference Room, 2nd Tuesday, 7-9 P. M. — May 13, "Treatment of Acute Pulmonary Distress," Mahendra Patel, M. D.

June 10, "Oral Manifestations of Cancer," David H. Walker, D.D.S.

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — May 27, "Early Recognition of Diabetes Retinopathy & Latest Modalities of Treatment" * (speaker to be announced)

Summersville, Summersville Memorial Hospital, 6:30-8:30 P. M. — May 5, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment,"* Alfred J. Magee, M. D.

June 2, "Update Sexually-Transmitted Diseases," Patrick Robinson, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — May 21, "Early Recognition of Diabetes Retinopathy & Latest Modalities of Treatment" * (speaker to be announced)

June 18, "Treatment of Bacterial Pneumonias," David Elliott, Pharm. D.

July 16, "The Magic Stone-Busting Machine: ESWL," Thomas McCoy, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — May 28, "The Magic Stone-Busting Machine: ESWL," Thomas McCoy, M. D.

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — May 1, "Allergic Diseases in Children," Chandra Kumar, M. D.

June 5, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment,"* Amos Wilkinson, M. D.

July 3, "Low Back Pain," William Sale, M. D.

*A special program in cooperation with West Virginia Department of Health; Department of Ophthalmology, WVU Medical Center, and WV Society of Ophthalmology.

AMA Annual Meeting

The annual meeting of the American Medical Association will convene on Sunday, June 15, at the Chicago Marriott Hotel. Registration opens at 8 A. M. Friday, June 13, and continues through the meeting's close on Thursday, June 19.

'Diabetic Health Care' Program May 23-24

A program for diabetics, their families and primary care practitioners caring for diabetics will be held Friday and Saturday, May 23-24, at West Virginia University Medical Center in Morgantown.

The occasion will be the annual meeting of the American Diabetes Association, West Virginia Affiliate, Inc., with the meeting entitled, "Diabetic Health Care 1986: Bridging the Gap."

The WVU CME office is co-sponsor.

The business session of the state diabetes affiliate will be held Friday afternoon, with the scientific program scheduled Saturday from 9 A. M. through 4 P. M.

The guest faculty member will be David A. Jenkins, M. D., Department of Nutritional Services, Faculty of Medicine, University of Toronto, Ontario, Canada. He will be joined by 12 WVU and Morgantown physicians and health care professionals.

Doctor Jenkins will give the 9 A. M. Saturday keynote address on "The Glycemic Index."

Other subjects to be discussed will include home blood glucose monitoring, exercise, the pediatric diabetic, the pregnant diabetic, and insulin therapy in the management of non-insulin dependent diabetes mellitus.

May CME Conferences Scheduled In Clarksburg

Following are one-hour CME conferences for May scheduled at United Hospital Center in Clarksburg through the Family Practice Residency:

May 8, "Transcutaneous Pacemaker;" May 12, "Dermatologic Problems of Summer Months;" May 13, "Ear Disease in the Elderly;" May 21, "Management of COPD;" and May 26, "Muscular Dystrophies."

For additional information, call (304) 624-7589.

WVSMA doctors in 1985 exceeded membership in the American Medical Association over the previous year for the seventh consecutive year. A plaque for this accomplishment is presented (above) to Dr. Charles E. Turner of Huntington, right, WVSMA President Elect, by AMA President Harrison L. Rogers, Jr., M. D., during the AMA's National Leadership Conference in Chicago last February.

19 Choose Internal Medicine

Half Of WVU Graduates To Enter Primary Care

Half the members of the West Virginia University School of Medicine class of 1986 will take postgraduate training in primary care specialities. And 10 more of the 80 who will be graduated in May also may enter primary care eventually, having chosen the non-specific transitional category for their first postgraduate year.

Residency choices of the class and the number in each include internal medicine, 19; family practice, 11; transitional, 10; anesthesiology, seven; surgery and combined medicine/pediatrics, five each; psychiatry and preliminary surgery, four each; pediatrics, three; obstetrics/gynecology and pathology, two each; radiology, plastic surgery, ophthalmology, urology, neurology, orthopedic surgery, transitional/pediatrics, and internal medicine/preventive medicine, one each.

Residents at State Hospitals

WVU Hospitals attracted 20 of those staying in West Virginia; Charleston Area Medical Center, 11; Wheeling's Ohio Valley Medical Center, two, and Clarksburg's United Hospital Center, one. Of the class members remaining in the state, 20 have chosen primary care.

Among other hospitals and medical centers where three or more from this year's class will train are Medical University of South Carolina in Charleston and Mercy Hospital, Pittsburgh, four each, and Akron (Ohio) General Hospital and University of Utah Affiliated Hospitals, Salt Lake City, three each.

Class of '86

Members of the class of 1986, their hometowns and destinations are:

Gary S. Abel, Morgantown, Hershey (Pa.) Medical Center; Dan G. Alexander, Steubenville, Ohio, St. Barnabas Medical Center, Livingston, N. J.; Phillip S. Allender, Morgantown, McKeesport (Pa.) Hospital; William M. Almasy, Wellsburg, WVU Hospital; Scott E. Andochick, Frederick, Md., Stanford (Calif.) University Hospital; John D. Angotti, Clarksburg, Chandler Medical Center, Lexington, Ky.; Mark C. Bates, Hurricane, CAMC; William H. Benson, Wheeling, Mercy Hospital, San Diego, Calif.; Donald F. Bias, Jr., Huntington, CAMC; Danny C. Blankenship, Charlton Heights, Akron (Ohio) General Hospital; Edwin B. Boso, Washington, WVU Hospital; Lisa A. Brancazio, Weirton, Mercy Hospital, Pittsburgh, Pa.; Walter C. Brogan III, Morgantown, University of California San Diego Medical Center; Albert T.

(Continued on Page 144)

Office Managers Group Membership Growing

Office Managers Association of Health Care Providers has grown to a membership representing more than 100 health care facilities in the state since the organization was formed in May, 1984.

Dian White of Charleston, President, said meetings to date have been held in the Charleston area but that other chapters in the state are being encouraged to organize.

She said meetings are held every two months on the second Thursday—January, March, May, July, September and November at 5:30 P. M. The May 8 meeting will be at St. Francis Hospital in Charleston.

"The objectives of our Association are to promote the improvement of professional knowledge and skill by uniting persons who are engaged in medical office manager activities, to promote channels of communication between the medical facilities and private offices, and to promote educational workshops," President White said.

"Our Association is nonprofit, nonunion, nonpartisan and nonsectarian. Membership is open to office managers of any health care facility."

Past meeting discussion topics have included introduction to the management process, stress management in the office, people problems, legalities involved in hiring and firing, acceptable collection procedures, and problem areas in managing a physician's office.

For further information, call President White at 342-1129 or any of the other officers, all of Charleston, Larry Stover, Vice President (343-9555); Terri Smith, Secretary (343-4371), and Jana Olah, Treasurer (346-6161).

'Doctors' Day' Observance Among FMG Activities

West Virginia foreign medical graduates were honored with a "Doctors' Day" celebration by the West Virginia American College of International Physicians Auxiliary on March 1.

The event was held at the Charleston Civic Center and consisted of international foods, a fashion show, entertainment, and door prizes.

In other developments involving state foreign medical graduates, Dr. Rano S. Bofill of Davin (Logan County) is now a Trustee of the national ACIP, and a state newsletter for Philippine medical graduates was started in January of this year.

Doctor Bofill, first President of the state ACIP chapter, also is Editor of the newsletter, "Philippine Medical Association and Philippine Medical Auxiliary of West Virginia Newsletter."

Dr. Jesus T. Ho of Moundsville is founding President of the state Philippine group.

AMA's CME Categories Simplified By House

The categories for the Physician's Recognition Award have been simplified by the AMA House of Delegates by reducing the six categories of education that can be reported to two.

The two new categories are "AMA PRA Category 1" and "All Other Categories."

PRA Category 1 remains unchanged. A minimum of 60 category 1 credits are required.

"All Other Categories" is a combination of the former categories two

through six. A maximum of 90 hours can be reported in "All Other Categories," and the education can be a mixture of activities or can be all one kind of activity (e.g., an applicant can report 90 hours of reading medical literature).

The AMA CME Department said new information booklets and application forms are being prepared, but it will be several months before they are ready for distribution. In the interim, applications that meet the new simplified requirements will be honored.

Nominations Of Doctors For Cash Award Invited

Ronald McDonald Children's Charities will award $100,000 to the physician or health care professional whose work has contributed the most to the health and well-being of children.

The award will be made to the individual for the continued support of his/her program, it was announced by Gerald Newman, President of Ronald McDonald Children's Charities (RMCC), which was established in 1984 in memory of McDonald's founder Ray A. Kroc and is dedicated to supporting programs that directly benefit young people. The award will be presented in the fall of 1986 at the opening of the 100th Ronald McDonald House on Long Island.

Deadline for nominations is June 30. They should be mailed to: Gerald Newman, President, Ronald McDonald Children's Charities, McDonald's Plaza, Oak Brook, IL 60521.

"We hope this annual award will draw national attention to a dedicated individual whose pioneering work is improving the quality of life for the current generation of young people," Newman commented.

Joining with RMCC in the search for candidates are representatives from: The American Academy of Pediatrics, The American Pediatric Society, and The Society for Pediatric Research. Additional selection committee members will include three representatives plus three physician-members of the RMCC Board of Trustees.

Cancer Screening In State By Doctors Good Job

A survey by the Community Medicine Department at West Virginia University indicates that West Virginia physicians are doing a creditable job of screening their patients for cancer.

The survey covered the three most common forms of cancer for which screening procedures are recommended — cervical, breast and colorectal. It is believed to be the first such survey covering an entire state, with a 33-per cent response from the 1,000 primary care physicians who received the mail questionnaire.

"For purposes of comparison we were able to use results of a nationwide telephone survey made about the same time by the American Cancer Society," said R. John C. Pearson, M. B., Chair of Community Medicine in the WVU School of Medicine.

Survey Results

Survey results indicate that 93 per cent of the responding West Virginia physicians order Pap smear tests for cervical cancer compared to 94 per cent nationally. Figures for breast cancer screening were 93 vs. 97 per cent for office examination and 73-80 for teaching self-examination.

Digital examination for rectal cancer was 92 vs. 96 per cent while West Virginia doctors exceeded the national figure for ordering occult blood testing at 83 vs. 75 per cent.

"The figures may be tilted a bit in our favor because our returns were only 33 per cent — and often the better people will respond — while the Cancer Society national telephone figures are based on a 90-per cent response," Doctor Pearson said.

Cervical, breast and colorectal cancer were chosen for the survey "because of their high prevalence and mortality, their improved outcome with early intervention and because there are generally acceptable screening tests even if they are not perfect.

"The Pap smear is the most sure, of course; and the physician examination for breast cancer is next."

Medical Meetings

May 1-3—WV Chapter, Am. College of Surgeons, White Sulphur Springs.

May 4-6—Am. Society of Clinical Oncology. Los Angeles.

May 5-8—Am. College of Obstetricians & Gynecologists, New Orleans.

May 6-9—Am. Pediatric Society, Washington, DC.

May 7-9—Am. Society for Artificial Internal Organs, Anaheim, CA.

May 10-16—Am. Psychiatric Assoc., Washington, DC.

May 11-14—Am. Thoracic Society, Kansas City, MO.

May 11-16—Am. Society of Colon & Rectal Surgeons, Houston.

May 17-23—Am. Gastoenterological Assoc., San Francisco.

May 29-30—Am. Society of Transplant Surgeons, Chicago.

May 29-June 1—VA Society of Ophthalmology, Norfolk.

June 7-14—Am. Assoc. of Orthopaedic Medicine, Portland, Ore.

June 8-12—World Congress on Pediatric & Adolescent Gynecology, Washington, DC.

June 9-10—Society of Vascular Surgery, New Orleans.

June 15-19—AMA Annual Meeting, Chicago.

June 18—WVSMA Loss Control Seminar, Charleston.

June 23-26—Am. Orthopaedic Assoc., Hot Springs, VA.

July 3-7—Am. College of International Physicians, Dallas.

Aug. 7-10—International Doctors in Alcoholics Anonymous, San Diego.

Aug. 12-17—119th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

Sept. 20—WVSMA Loss Control Seminar, Parkersburg.

Sept. 29-Oct. 6—Am. Academy of Family Physicians, Washington, DC.

Oct. 18—WVSMA Loss Control Seminar, Beckley.

Oct. 19-24—Am. College of Surgeons, New Orleans.

Nov. 8—WVSMA Loss Control Seminar, Huntington.

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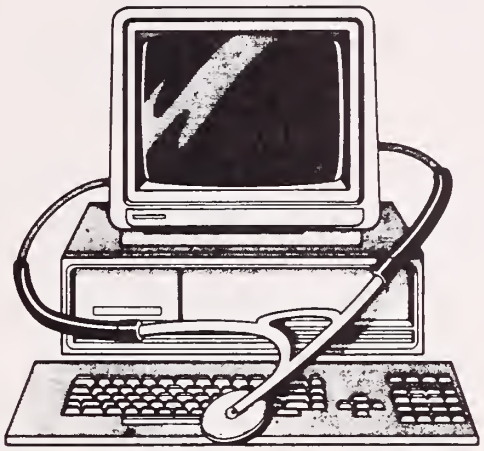

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WVU Medical Center News

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

1-800-4-CANCER Gets New Information Service

Beginning April 1, West Virginians could get toll-free answers to their questions about cancer by calling the new Cancer Informantion Service (CIS) of West Virginia. Callers can reach CIS by dialing 1-800-4-CANCER.

"Our trained telephone counselors can provide accurate, confidential answers to your questions about cancer," CIS manager Myra Friedman said.

"We're here to provide helpful information to cancer patients, relatives and friends of cancer patients, health professionals, and anyone with questions or concerns about cancer."

The service is provided by the Mary Babb Randolph Cancer Center at WVU under contract with the National Cancer Institute.

CIS, located at the Medical Center, serves the entire state. Phone counselors are on duty from 9 A. M. to 7 P. M. weekdays and from 9 A. M. to noon on Saturdays.

"We can answer questions about possible causes of cancer, cancer prevention, how various kinds of cancer are detected, available cancer treatments, and advances in cancer research," Friedman said.

$1 Million Gift Endows Chair Of Pharmacology

A $1 million gift from Mylan Pharmaceuticals Inc. of Morgantown to endow a chair of pharmacology in the WVU School of Medicine was announced in April.

It is the first fully-endowed $1 million academic chair in the basic sciences at the medical school and the first ever from a corporation.

The gift was announced by Cheryl Blume, Mylan Vice President for Scientific Affairs, at a news conference attended by Mylan President Milan Puskar and top officials of the University.

Doctor Blume, who received her doctorate in pharmacology and toxicology at WVU in 1977, said establishment of a permanent chair in that discipline "is a particularly appropriate form of assistance for us to provide."

Initial holder of the Mylan Chair of Pharmacology will be William W. Fleming, Chairman of the Department of Pharmocology and Toxicology. He is described by medical Dean Richard A. DeVaul, M. D., as "a world class scientist" and Chairman since 1966 of "one of our most productive scientific departments."

Stanford Doctor Gives Annual AOA Lecture

Robert A. Chase, M. D., who is the Emile Holman Professor of Surgery and a Professor of Anatomy at Stanford University Medical School in California, presented the annual Alpha Omega Alpha lecture April 30 at WVU Medical Center.

His 4 P. M. talk on "The Hidden Curriculum" was in the Basic Sciences Addition auditorium, and he also spoke that evening at a banquet at Sheraton Lakeview honoring WVU's newest members of AOA, the national honor medical society. Earlier he participated in a School of Medicine research conference and rounds with residents, students and faculty.

Doctor Chase, Chief of Stanford's Division of Human Anatomy, is a cum laude graduate of the University of New Hampshire, and received his medical degree at Yale University where he was elected to AOA and later served on the faculty.

New AOA Members

Scott E. Andochick of Frederick, Maryland, fourth-year medical student and WVU President of AOA, announced the following new members:

William Almasy, Wellsburg; John Angotti, Clarksburg; Timothy Campbell, Bethel Park, Pa.; Daniel Frame, Frametown; Jennifer Maher, Philippi; David Shallcross, Schwenksville, Pa.; John Willis, Beckley; all fourth-year students.

Bruce Davidson, Morgantown; Bruce Klein, Stanford, Conn.; Glen Marino, Bethpage, N. Y.; James McDermott, Wheeling; Jerilyn Ribovich, McKeesport, Pa., and John Shufflebarger, Berkeley Springs; all of the third-year class.

Doctor Weinstein Chosen For National Presidency

George W. Weinstein, M. D., Chair of the Department of Ophthalmology, has been chosen President of the Association of University Professors of Ophthalmology.

The group is composed of more than 100 chairpersons of academic departments and divisions of ophthalmology and 40 directors of hospital residency training programs. It was formed in 1966 to review the impact of socioeconomic and governmental influence upon ophthalmology teaching programs.

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If your patients have hypertension, they probably have high cholesterol too.

The Framingham Heart Study[2] showed that over two thirds of the 35 and older population in that study with systolic blood pressures over 145 mmHg also had serum cholesterol levels of 225 mg/dL or more, and 46% had levels above 250 mg/dL.

While many clinical laboratories still report 250 mg/dL as "normal" cholesterol, the NIH Consensus Development Conference Statement on Cholesterol and Heart Disease[3] stated that any level above 220 mg/dL is associated with a significantly increased risk of coronary heart disease.

You need to know, because high cholesterol parallels high blood pressure as a CHD risk factor.

Epidemiological studies and large-scale prevention trials have indicated that as with blood pressure, serum cholesterol levels are proportionately related to CHD risk.

Specifically, *"...for every 10 mmHg rise in pressure, there appears to be about a 30% rise in cardiovascular risk."*[4] *"...for every one percent you go up the American cholesterol scale, your subsequent rate of heart attack rises two to three percent."*[5]

And although the specific impact on CHD has not been determined, we know that many of the principal agents used to lower blood pressure actually increase cholesterol.

Wytensin® lowers blood pressure effectively without raising cholesterol.

While Wytensin is not a cholesterol-lowering agent and is not indicated for the treatment of hyperlipidemia, in controlled clinical trials[6] it caused a slight, sustained decrease in total cholesterol without reducing the HDL fraction or altering serum triglycerides.

At the same time, Wytensin lowered blood pressure as effectively as hydrochlorothiazide, propranolol, clonidine or methyldopa. Drowsiness and/or dry mouth, the most frequent side effects noted with Wytensin, usually diminish or disappear over time. In fact, in double-blind studies to date, discontinuance of therapy for all side effects occurred in about 13% of patients.

WyTensin®
(guanabenz acetate)

Antihypertensive therapy that does not increase cholesterol

See important information on following page.

References: 1. Glueck CJ: Remarks in the symposium, *Blood Pressure, Cholesterol and Coronary Heart Disease*, Washington, D.C., March 31, 1985. 2. *The Framingham Study, An epidemiological investigation of cardiovascular disease*, Section 28, U.S. Dept. of Health, Education, and Welfare. 3. National Institutes of Health Consensus Development Conference Statement, 1984: Vol 5, No 7, p 4. 4. Chobanian AV: The influence of hypertension and other hemodynamic factors in atherogenesis. *Progress in Cardiovascular Diseases, XXVI* (3): 177, Nov/Dec, 1983. 5. Castelli WP: Remarks in the symposium, *Blood Pressure, Cholesterol and Coronary Heart Disease*, Washington, D.C., March 31, 1985. 6. Data on file, Wyeth Laboratories.

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WyTensin®
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Antihypertensive therapy that does not increase cholesterol

Brief Summary

Before prescribing, consult the complete package circular.

Indications and Usage: Treatment of hypertension, alone or in combination with a thiazide diuretic.

Contraindication: Known sensitivity to the drug.

Precautions: 1. Sedation: Causes sedation or drowsiness in a large fraction of patients. When used with centrally active depressants, e.g., phenothiazines, barbiturates and benzodiazepines, consider potential for additive sedative effects. 2. Patients with vascular insufficiency: Like other antihypertensives use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease, or severe hepatic or renal failure. 3. Rebound: Sudden cessation of therapy with central alpha agonists like **Wytensin** may rarely result in "overshoot" hypertension and more commonly produces increase in serum catecholamines and subjective symptomatology.

INFORMATION FOR PATIENTS: Advise patients on **Wytensin** to exercise caution when operating dangerous machinery or motor vehicles until it is determined they do not become drowsy or dizzy. Warn patients that tolerance for alcohol and other CNS depressants may be diminished. Advise patients not to discontinue therapy abruptly.

LAB TESTS: In clinical trials, no clinically significant lab test abnormalities were identified during acute or chronic therapy. Tests included CBC, urinalysis, electrolytes, SGOT, bilirubin, alkaline phosphatase, uric acid, BUN, creatinine, glucose, calcium, phosphorus, total protein, and Coombs' test. During long-term use there was small decrease in serum cholesterol and total triglycerides without change in high-density lipoprotein fraction. In rare instances occasional nonprogressive increase in liver enzymes was observed, but no clinical evidence of hepatic disease.

DRUG INTERACTIONS: **Wytensin** was not demonstrated to cause drug interactions when given with other drugs, e.g., digitalis, diuretics, analgesics, anxiolytics, and antiinflammatory or antiinfective agents, in clinical trials. However, potential for increased sedation when given concomitantly with CNS depressants should be noted.

DRUG/LAB TEST INTERACTIONS: No lab test abnormalities were identified with **Wytensin** use.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY: No evidence of carcinogenic potential emerged in rats during a two-year oral study with **Wytensin** at up to 9.5 mg/kg/day, i.e., about 10 times maximum recommended human dose. In the Salmonella microsome mutagenicity (Ames) test system, **Wytensin** at 200-500 mcg per plate or at 30-50 mcg/ml in suspension gave dose-related increases in number of mutants in one (TA 153[7]) of five *Salmonella typhimurium* strains with or without inclusion of rat liver microsomes. No mutagenic activity was seen at doses up to those which inhibit growth in the eukaryotic microorganism, *Schizosaccharomyces pombe*, or in Chinese hamster ovary cells at doses up to those lethal to the cells in culture. In another eukaryotic system, *Saccharomyces cerevisiae*, **Wytensin** produced no activity in an assay measuring induction of repairable DNA damage. Reproductive studies showed a decreased pregnancy rate in rats given high oral doses (9.6 mg/kg), suggesting impairment of fertility. Fertility of treated males (9.6 mg/kg) may also have been affected, as suggested by decreased pregnancy rate of mates, even though females received drug only during last third of pregnancy.

PREGNANCY: Pregnancy Category C. WYTENSIN[R] MAY HAVE ADVERSE EFFECTS ON FETUS WHEN ADMINISTERED TO PREGNANT WOMEN. A teratology study in mice indicated possible increase in skeletal abnormalities when **Wytensin** is given orally at doses 3 to 6 times maximum recommended human dose of 1.0 mg/kg. These abnormalities, principally costal and vertebral, were not noted in similar studies in rats and rabbits. However, increased fetal loss has been observed after oral **Wytensin** given to pregnant rats (14 mg/kg) and rabbits (20 mg/kg). Reproductive studies in rats have shown slightly decreased live-birth indices, decreased fetal survival rate, and decreased pup body weight at oral doses of 6.4 and 9.6 mg/kg. There are no adequate, well-controlled studies in pregnant women. **Wytensin** should be used during pregnancy only if potential benefit justifies potential risk to fetus.

NURSING MOTHERS: Because no information is available on **Wytensin** excretion in human milk, it should not be given to nursing mothers.

PEDIATRIC USE: Safety and effectiveness in children less than 12 years of age have not been demonstrated; use in this age group cannot be recommended.

Adverse Reactions: Incidence of adverse effects was ascertained from controlled clinical studies in U.S. and is based on data from 859 patients on **Wytensin** for up to 3 years. There is some evidence that side effects are dose-related. Following table shows incidence of adverse effects in at least 5% of patients in study comparing **Wytensin** to placebo, at starting dose of 8 mg b.i.d.

Adverse Effect	Placebo (%) n = 102	**Wytensin** (%) n = 109
Dry mouth	7	28
Drowsiness or sedation	12	39
Dizziness	7	17
Weakness	7	10
Headache	6	5

In other controlled clinical trials at starting dose of 16 mg/day in 476 patients, incidence of dry mouth was slightly higher (38%) and dizziness was slightly lower (12%), but incidence of most frequent adverse effects was similar to placebo-controlled trial. Although these side effects were not serious, they led to discontinuation of treatment about 15% of the time. In more recent studies using an initial dose of 8 mg/day in 274 patients, incidence of drowsiness or sedation was lower, about 20%. Other adverse effects reported during clinical trials but not clearly distinguishable from placebo effects and occurring with frequency of 3% or less. Cardiovascular—chest pain, edema, arrhythmias, palpitations. Gastrointestinal—nausea, epigastric pain, diarrhea, vomiting, constipation, abdominal discomfort. Central nervous system—anxiety, ataxia, depression, sleep disturbances. ENT disorders—nasal congestion. Eye disorders—blurring of vision. Musculoskeletal—aches in extremities, muscle aches. Respiratory—dyspnea. Dermatologic—rash, pruritus. Urogenital—urinary frequency, disturbances of sexual function. Other—gynecomastia, taste disorders.

Drug Abuse and Dependence: No dependence or abuse has been reported.

Overdosage: Accidental ingestion caused hypotension, somnolence, lethargy, irritability, miosis, and bradycardia in two children aged one and three years. Gastric lavage and pressor substances, fluids, and oral activated charcoal resulted in complete and uneventful recovery within 12 hours in both. Since experience with accidental overdosage is limited, suggested treatment is mainly supportive while drug is being eliminated and until patient is no longer symptomatic. Vital signs and fluid balance should be carefully monitored. Adequate airway should be maintained and, if indicated, assisted respiration instituted. No data are available on **Wytensin** dialyzability.

Dosage and Administration: Individualize dosage. A starting dose of 4 mg b.i.d. is recommended, whether used alone or with a thiazide diuretic. Dosage may be increased in increments of 4 to 8 mg/day every one to two weeks, depending on response. Maximum dose studied has been 32 mg b.i.d., but doses this high are rarely needed.

How Supplied: (guanabenz acetate) Tablets, 4 mg, bottles of 100 and 500; 8 mg and 16 mg, bottles of 100.

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12. I'm allergic to flowering magnolia."

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119th ANNUAL MEETING

of the

West Virginia State Medical Association

The Greenbrier

AUGUST 12-17, 1986

PLAN NOW TO ATTEND

Obituaries

ARCHBOLD M. JONES, M. D.

Dr. Archbold M. Jones, Parkersburg pediatrician, died March 4 in a hospital there. He was 84.

Doctor Jones, who began practice in 1928 in Parkersburg, was born in Smithburg (Doddridge County).

He was graduated from West Virginia University, and received his M. D. degree in 1925 from the Medical College of Virginia. He interned at Bellevue Hospital and Willard Parker Hospital for Communicable Disease in New York City and at the Children's Hospital in Philadelphia.

Doctor Jones was a member of the American Academy of Medicine and the Southern Medical Association, a Fellow of the American Academy of Pediatrics, and an honorary member of the Parkersburg Academy of Medicine, West Virginia State Medical Association and American Medical Association.

Surviving are the wife, Lois Boone Jones; a son, Dr. Archbold M. Jones, Jr., of Seminole, Florida, and a borther, Edwin Jones of Morgantown.

THOMAS S. KNAPP, M. D.

Dr. Thomas S. Knapp, Charleston psychiatrist, died on March 10 at his home. He was 65.

A lifelong resident of Charleston, Doctor Knapp was well-known in both psychiatric and Charleston area performing arts circles.

He was President and Clinical Director of Associated Psychiatric Services in Charleston, and was a former Superintendent of Spencer State Hospital.

He was on the staffs of Charleston Area Medical Center, Highland Hospital in Charleston, and Thomas Memorial Hospital in South Charleston.

Doctor Knapp was graduated from West Virginia University, and received his M. D. degree in 1945 from Jefferson Medical College. He interned at the former Charleston General Hospital, and served his residency with the U. S. Army Medical Corps at the Veterans Administration Hospital in Richmond, Virginia, and at the Medical College of Virginia.

Doctor Knapp was a member of the West Virginia District Branch, American Psychiatric Association, a Fellow of the American Psychiatric Association, and a member of the Kanawha Medical Society, West Virginia State Medical Association and American Medical Association.

In the mid-1960s, he made his debut with the Kanawha Players in "Darkness at Noon," and later performed in a number of other productions with the Players.

Survivors include three daughters, Rebecca Ayers of Houston, Sheridan Hill of Richmond, and Claudia Zimarowski of South Bend, Indiana, and the mother, Lillian Knapp of Charleston.

WVU GRADUATES —

(Continued from Page 138)

Bundy, Weirton, Medical University of South Carolina, Charleston; Stewart J. Callis, Mountain Lake Park, Md., WVU Hospital;

Timothy M. Campbell, Bethel Park, Pa., Mercy Hospital, Pittsburgh; Dennis C. Channel, Morgantown, WVU Hospital; Elizabeth A. Clubb, Clarksburg, CAMC; Rodney Lee Curtis II, New Martinsville, Ohio Valley Medical Center, Wheeling; Michael B. Edmond, Monongah, WVU Hospital; Daniel S. Frame, Frametown, St. Thomas Hospital, Akron, Ohio; Patricia Ann Gainor, Clarksburg, WVU Hospital; Philip F. Gaziano, Charleston, Baystate Medical Center, Springfield, Mass.; Joseph F. Gibbons, Silver Spring, Md., Washington (D.C.) Hospital Center; Bruce L. Ginier, Weirton, St. Thomas Hospital, Akron, Ohio; Vincent M. Gioia, Wheeling, WVU Hospital; Barbara L. Gould, Morgantown, State University of New York Erie County Medical Center, Buffalo; Terry L. Gramlich, Wheeling, Medical University of South Carolina, Charleston;

Janet L. Griffin, Weirton, CAMC; Laurie Gutmann, Morgantown, Hamot Hospital, Erie, Pa.; Michael W. Halley, Charleston, CAMC; James E. Hancock, Fairmont, Army Medical Center, Fort Gordon, Ga.; Robert R. Heavner, Buckhannon, WVU Hospital; Debra L. Henry, Martinsburg, CAMC; Daniel B. Holtan, Morgantown, Akron (Ohio) General Hospital; Kimberly C. Irwin, Elkins, Cleveland (Ohio) Clinic; Robert R. Johnson II, Vienna, Chandler Medical Center, Lexington, Ky.; Leroy J. Korb, Cross Lanes, Hamot Hospital, Erie, Pa.; Leon S. Kwei, Glen Ferris, CAMC; John W. Lacount, Moundsville, Cincinnati (Ohio) General Hospital; John P. Lilly, Jr., Nitro, CAMC;

Jennifer G. Maher, Philippi, Georgetown University, Washington, D. C.; William R. Marchand, Salem, University of Utah Affiliated Hospital, Salt Lake City; Michele S. Maroon, Wheeling, Mercy Hospital, Pittsburgh; Thomas G. Mason II, Salem, WVU Hospital; Edward J. McClain III, Pittsburgh, Mercy Hospital, Pittsburgh; Steven G. McLaughlin, Charleston, Charlotte (N.C.) Memorial Hospital; Douglas F. Milam, Morgantown, University of Utah Affiliated Hospitals, Salt Lake City; Lois L. Minich, New Bethlehem, Pa., Medical Center Hospital of Vermont, Burlington; Breton L. Morgan, Point Pleasant, CAMC; Dianne G. Muchant, Hopemont, WVU Hospital; Timothy W. Nelson, Huntington, Medical University of South Carolina, Charleston; Cheryl A. Palmer, Charleroi, Pa., University of Utah Affiliated Hospitals, Salt Lake City; Debra J. Panucci, Dunbar, Allegheny General Hospital, Pittsburgh;

William M. Parrish, Mannington, WVU Hospital; Stephen W. Pollard, Morgantown, Hershey (Pa.) Medical Center; Jeffrey G. Priddy, Nitro, CAMC; Frank W. Sabatelli, Clarksburg, WVU Hospital; John C. Schulz, Morgantown, Ohio Valley Medical Center, Wheeling; Michael J. Sevka, Star City, WVU Hospital; David L. Shallcross, Elkins, WVU Hospital; JoAnn G. Shaw, Wheeling, North Carolina Baptist Hospital, Winston-Salem; John S. Shymansky, Wheeling, Shadyside Hospital, Pittsburgh, Pa.; Carol L. Simmons, Glen Dale, WVU Hospital; Rodney M. Simpkins, Charleston, Roanoke (Va.) Memorial Hospital; Paul A. Skaff II, Charleston, Medical University of South Carolina, Charleston; Teresa L. Skidmore, Sutton, Charlotte (N.C.) Memorial Hospital;

Richard A. Spencer, Richwood, WVU Hospital; David L. Thomas,

(Continued on Page 146)

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- ☐ Office Overhead Disability Plan
- ☐ Professional Liability Insurance

Mail to Administrator: McDonough Caperton Shepherd Association Group
P.O. Box 3186, Charleston, WV 25332

County Societies

CABELL

The Cabell County Medical Society met March 13 at the Holiday Inn Gateway East in Barboursville.

State Sen. B. Ned Jones (D, Fifth District) provided a summary of malpractice legislation passed by the recent session of the Legislature and his recommendations for the economic expansion of West Virginia.

Fanny Haslebacher, J.D., Executive Director of the new statewide preferred provider organization (PPO), Preferred Medical Care Network of West Virginia in Charleston, gave an update on its development.

Dr. Maurice A. Mufson of Huntington, the speaker for the evening, gave an interesting talk on "Science and Medicine in Sweden" based on his experience during his year of sabbatical leave. He presented highlights of his work at the Karolinska Institute on Respiratory Syncytial Viral Identification, and briefly described the socialized health care system of that country. — Mabel M. Stevenson, M. D., Secretary.

McDOWELL

The McDowell County Medical Society met in conjunction with the Auxiliary for a covered dish dinner March 12.

Michael Gann of Charleston, Coordinator for the West Virginia Transplant Program, gave a presentation on organ and tissue procurement, including slides and discussion.

The Society met again on March 19.

With scheduled representatives of the Preferred Medical Care Network of West Virginia being unable to appear for the program, there was a free discussion of the pros and cons of joining the PPO instead.

The Society decided that individual members should send in their own information forms to the Cancer Information Service associated with the Mary Babb Randolph Cancer Center in Morgantown. — Barbara A. Fenton, M. D., Secretary.

MONONGALIA

Fannie Haslebacher, J. D., Executive Director of the Preferred Medical Care Network of West Virginia, Charleston, was guest speaker for the meeting of the Monongalia County Medical Society on March 4.

Ms. Haslebacher encouraged Society members to join the newly formed preferred provider organization (PPO) which she said would "put the management of medical care back in the hands of physicians."

A summary of her talk was distributed to members. — Robert L. Murphy, Executive Secretary.

WESTERN

Dr. David Z. Morgan of Morgantown, President of the State Medical Association, was the guest speaker for the meeting of the Western Medical Society March 11 at Jackson General Hospital in Ripley.

Doctor Morgan gave a very comprehensive and detailed explanation of the recent state legislation which passed, citing the impact on medical practice in West Virginia. He also gave a very detailed talk about the new preferred provider organization, and answered questions. — Ali H. Morad, M. D., Secretary.

WVU GRADUATES —

(Continued from Page 144)

Wheeling, North Carolina Baptist Hospital, Winston-Salem; Walter P. Thrush, Clarksburg, United Hospital Center, Clarksburg; Richard M. Vaglienti, Morgantown, WVU Hospital; Robert A. Vance, Wardensville, WVU Hospital; Victorine M. Vining, Braintree, Mass., Hartford (Conn.) Hospital; David T. Ward, Williamson, Army Medical Center, Fort Gordon, Ga.; Matthew J. Ward, Wheeling, Mercy Catholic Medical Center, Philadelphia, Pa.; Louis J. Wickas III, Wyomissing Hills, Pa., Allegheny General Hospital, Pittsburgh; John A. Willis, Beckley, CAMC; Mark R. Withers, Philippi, WVU Hospital; Lana E. Wlodyka, Peterborough, N. H., Akron (Ohio) General Hospital; and Paul Yeaton, Morgantown, WVU Hospital.

Book Review

AIDS IN THE MIND OF AMERICA — Dennis Altman. $16.95. Doubleday and Co., Inc., 245 Park Avenue, New York, New York 10167. 1986.

The subtitle of this book is: "The Social, Political and Psychological Impact of a New Epidemic." The author is a widely-travelled Professor of Political Science at an Australian University whose previous four books appear to have had predominantly homosexual themes.

There are eight chapters: living through an epidemic; a very political epidemic; the conceptualization of AIDS; fear and stigma; the gay community's response; politics and money; contagious desire — sex and disease; and a very American epidemic? Each chapter is well referenced and the index is complete.

The main theme is that the history of the response to and the research effort exploring AIDS would have been different if the disease had not been identified first in homosexuals. The author has his facts correct, and has a few new insights, but these are buried in a rather polemic setting. He tends to be wordy and repetitive, and it is a heavy slog to get through the book.

I cannot imagine a large audience for this book in West Virginia, even if AIDS should become a bigger problem here than it now is. The solutions are public education and some treatment or vaccine, and this book will not help with either. — R. John C. Pearson, M.B., M.P.H.

Improved Cancer Results

Aggressive combined surgical and radiotherapeutic approach to primarily inoperable rectal cancer has resulted in a marked improvement in control of the disease and in survival, according to a report from Joel E. Tepper, M. D., of Massachusetts General Hospital in Boston, and colleagues. "The actuarial local control rate at 36 months for the entire group (of 29 patients) was 87 per cent," they said in the April *Archives of Surgery*.

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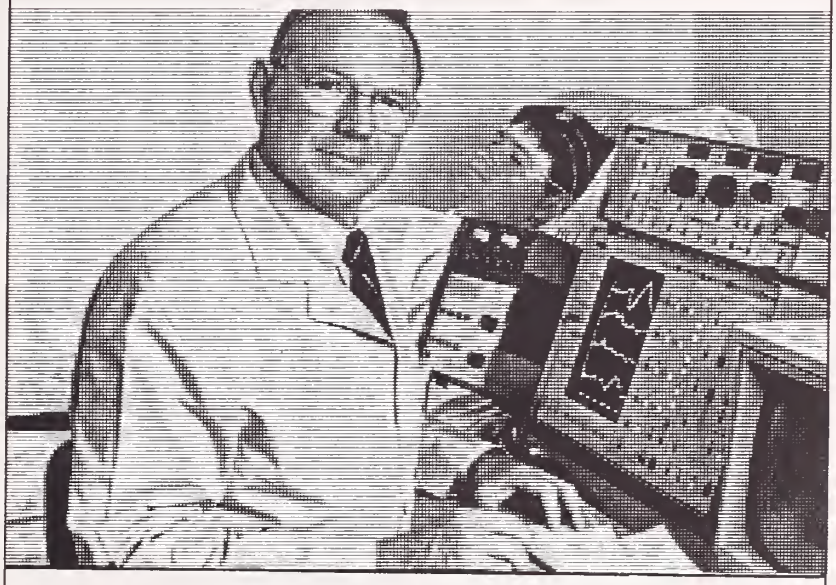

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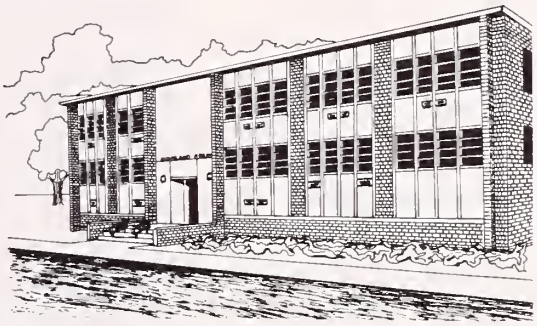

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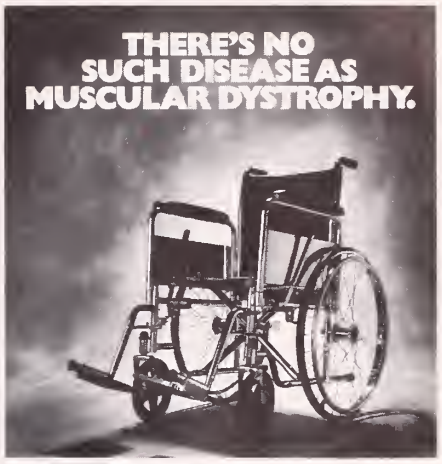

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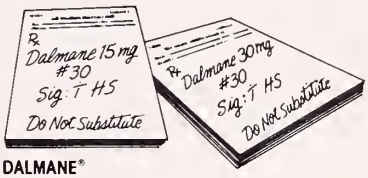

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Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Withdrawal symptoms rarely reported; abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase; and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults:* 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients:* 15 mg recommended initially until response is determined.

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Please see preceding page for summary of product information.

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June 1986 West Virginia State Medical Association Volume 82 No. 6

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The Personal Aftermath of West Virginia's Largest Malpractice Verdict — Page 179

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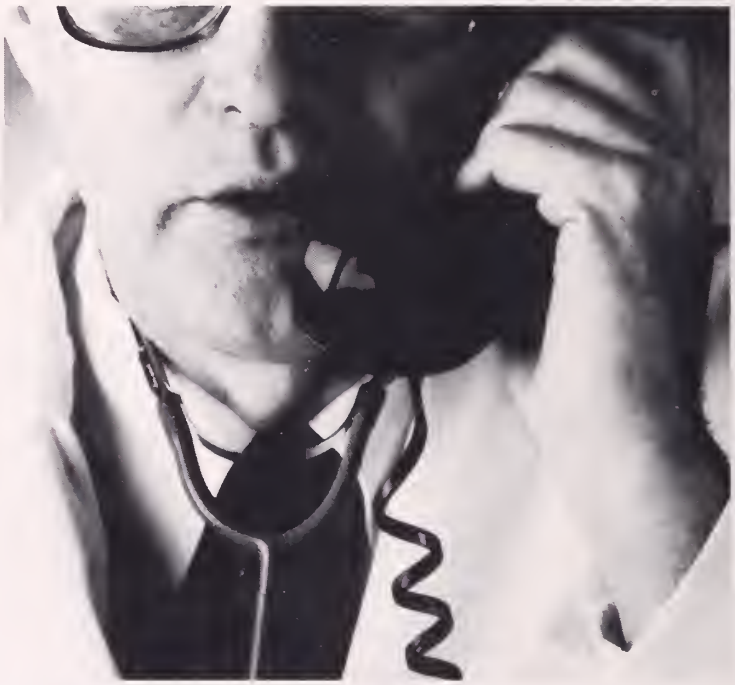

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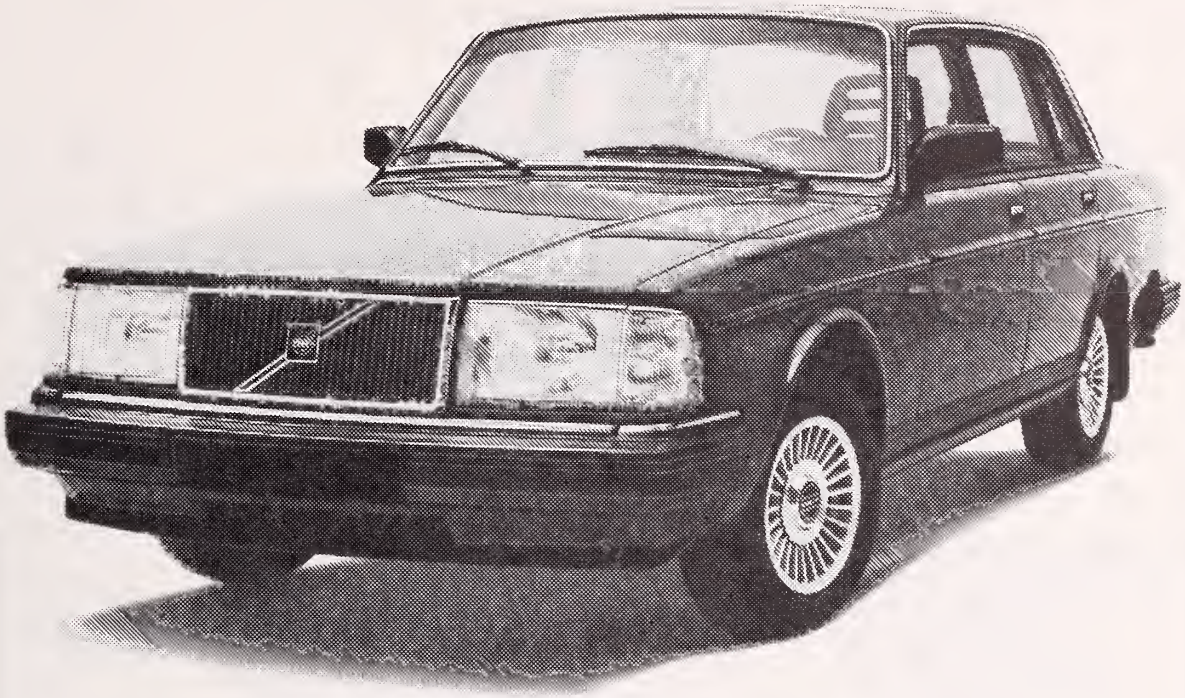

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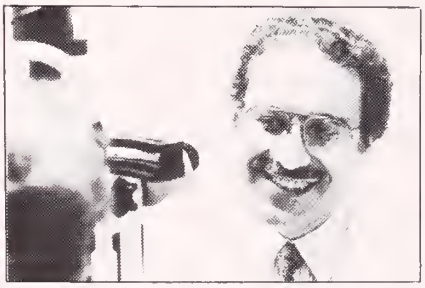

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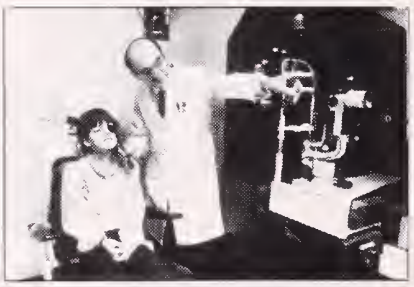

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Antihypertensive therapy that does not increase cholesterol

See important information on following page.

References: 1. Glueck CJ: Remarks in the symposium, *Blood Pressure, Cholesterol and Coronary Heart Disease*, Washington, D.C., March 31, 1985. 2. *The Framingham Study, An epidemiological investigation of cardiovascular disease*, Section 28, U.S. Dept. of Health, Education, and Welfare. 3. National Institutes of Health Consensus Development Conference Statement, 1984: Vol 5, No 7, p 4. 4. Chobanian AV: The influence of hypertension and other hemodynamic factors in atherogenesis. *Progress in Cardiovascular Diseases, XXVI* (3): 177, Nov/Dec, 1983. 5. Castelli WP: Remarks in the symposium, *Blood Pressure, Cholesterol and Coronary Heart Disease*, Washington, D.C., March 31, 1985. 6. Data on file, Wyeth Laboratories.

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Antihypertensive therapy that does not increase cholesterol

Brief Summary

Before prescribing, consult the complete package circular.

Indications and Usage: Treatment of hypertension, alone or in combination with a thiazide diuretic

Contraindication: Known sensitivity to the drug

Precautions: 1. Sedation. Causes sedation or drowsiness in a large fraction of patients When used with centrally active depressants, e.g., phenothiazines, barbiturates and benzodiazepines, consider potential for additive sedative effects 2 Patients with vascular insufficiency Like other antihypertensives use with caution in severe coronary insufficiency, recent myocardial infarction, cerebrovascular disease, or severe hepatic or renal failure 3 Rebound Sudden cessation of therapy with central alpha agonists like **Wytensin** may rarely result in "overshoot" hypertension and more commonly produces increase in serum catecholamines and subjective symptomatology

INFORMATION FOR PATIENTS. Advise patients on **Wytensin** to exercise caution when operating dangerous machinery or motor vehicles until it is determined they do not become drowsy or dizzy. Warn patients that tolerance for alcohol and other CNS depressants may be diminished. Advise patients not to discontinue therapy abruptly

LAB TESTS In clinical trials, no clinically significant lab test abnormalities were identified during acute or chronic therapy Tests included CBC, urinalysis, electrolytes, SGOT, bilirubin, alkaline phosphatase, uric acid, BUN, creatinine, glucose, calcium, phosphorus, total protein, and Coombs' test. During long-term use there was small decrease in serum cholesterol and total triglycerides without change in high-density lipoprotein fraction In rare instances occasional nonprogressive increase in liver enzymes was observed, but no clinical evidence of hepatic disease

DRUG INTERACTIONS **Wytensin** was not demonstrated to cause drug interactions when given with other drugs, e.g., digitalis, diuretics, analgesics, anxiolytics, and antiinflammatory or antiinfective agents, in clinical trials However, potential for increased sedation when given concomitantly with CNS depressants should be noted.

DRUG/LAB TEST INTERACTIONS No lab test abnormalities were identified with **Wytensin** use

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY No evidence of carcinogenic potential emerged in rats during a two-year oral study with **Wytensin** at up to 9 5 mg/kg/day, i.e., about 10 times maximum recommended human dose In the Salmonella microsome mutagenicity (Ames) test system, **Wytensin** at 200-500 mcg per plate or at 30-50 mcg/ml in suspension gave dose-related increases in number of mutants in one (TA 1537) of five *Salmonella typhimurium* strains with or without inclusion of rat liver microsomes No mutagenic activity was seen at doses up to those which inhibit growth in the eukaryotic microorganism, *Schizosaccharomyces pombe*, or in Chinese hamster ovary cells at doses up to those lethal to the cells in culture In another eukaryotic system, *Saccharomyces cerevisiae*, **Wytensin** produced no activity in an assay measuring induction of repairable DNA damage Reproductive studies showed a decreased pregnancy rate in rats given high oral doses (9 6 mg/kg), suggesting impairment of fertility Fertility of treated males (9 6 mg/kg) may also have been affected, as suggested by decreased pregnancy rate of mates, even though females received drug only during last third of pregnancy.

PREGNANCY Pregnancy Category C WYTENSIN® MAY HAVE ADVERSE EFFECTS ON FETUS WHEN ADMINISTERED TO PREGNANT WOMEN A teratology study in mice indicated possible increase in skeletal abnormalities when **Wytensin** is given orally at doses 3 to 6 times maximum recommended human dose of 1 0 mg/kg These abnormalities, principally costal and vertebral, were not noted in similar studies in rats and rabbits However, increased fetal loss has been observed after oral **Wytensin** given to pregnant rats (14 mg/kg) and rabbits (20 mg/kg) Reproductive studies in rats have shown slightly decreased live-birth indices, decreased fetal survival rate, and decreased pup body weight at oral doses of 6 4 and 9 6 mg/kg There are no adequate, well-controlled studies in pregnant women **Wytensin** should be used during pregnancy only if potential benefit justifies potential risk to fetus

NURSING MOTHERS Because no information is available on **Wytensin** excretion in human milk, it should not be given to nursing mothers

PEDIATRIC USE Safety and effectiveness in children less than 12 years of age have not been demonstrated, use in this age group cannot be recommended

Adverse Reactions: Incidence of adverse effects was ascertained from controlled clinical studies in U S and is based on data from 859 patients on **Wytensin** for up to 3 years There is some evidence that side effects are dose-related Following table shows incidence of adverse effects in at least 5% of patients in study comparing **Wytensin** to placebo, at starting dose of 8 mg b i d

Adverse Effect	Placebo (%) n = 102	**Wytensin** (%) n = 109
Dry mouth	7	28
Drowsiness or sedation	12	39
Dizziness	7	17
Weakness	7	10
Headache	6	5

In other controlled clinical trials at starting dose of 16 mg/day in 476 patients, incidence of dry mouth was slightly higher (38%) and dizziness was slightly lower (12%), but incidence of most frequent adverse effects was similar to placebo-controlled trial Although these side effects were not serious, they led to discontinuation of treatment about 15% of the time In more recent studies using an initial dose of 8 mg/day in 274 patients, incidence of drowsiness or sedation was lower, about 20% Other adverse effects reported during clinical trials but not clearly distinguishable from placebo effects and occurring with frequency of 3% or less Cardiovascular—chest pain, edema, arrhythmias, palpitations Gastrointestinal—nausea, epigastric pain, diarrhea, vomiting, constipation, abdominal discomfort Central nervous system—anxiety, ataxia, depression, sleep disturbances ENT disorders—nasal congestion Eye disorders—blurring of vision Musculoskeletal—aches in extremities, muscle aches Respiratory—dyspnea Dermatologic—rash, pruritus Urogenital—urinary frequency, disturbances of sexual function Other—gynecomastia, taste disorders

Drug Abuse and Dependence: No dependence or abuse has been reported

Overdosage: Accidental ingestion caused hypotension, somnolence, lethargy, irritability, miosis, and bradycardia in two children aged one and three years Gastric lavage and pressor substances, fluids, and oral activated charcoal resulted in complete and uneventful recovery within 12 hours in both Since experience with accidental overdosage is limited, suggested treatment is mainly supportive while drug is being eliminated and until patient is no longer symptomatic Vital signs and fluid balance should be carefully monitored Adequate airway should be maintained and, if indicated, assisted respiration instituted No data are available on **Wytensin** dialyzability

Dosage and Administration: Individualize dosage A starting dose of 4 mg b i d is recommended, whether used alone or with a thiazide diuretic Dosage may be increased in increments of 4 to 8 mg/day every one to two weeks, depending on response Maximum dose studied has been 32 mg b i d, but doses this high are rarely needed.

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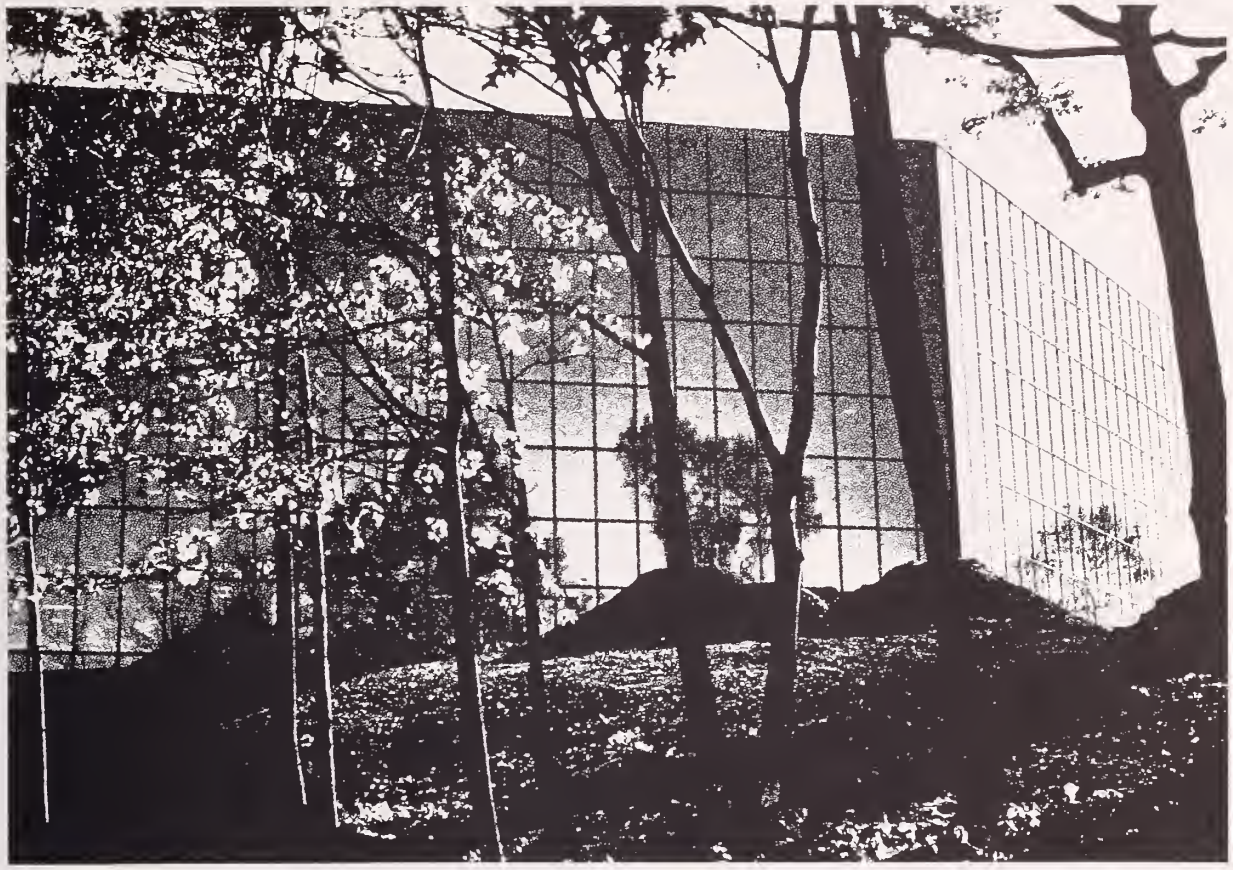

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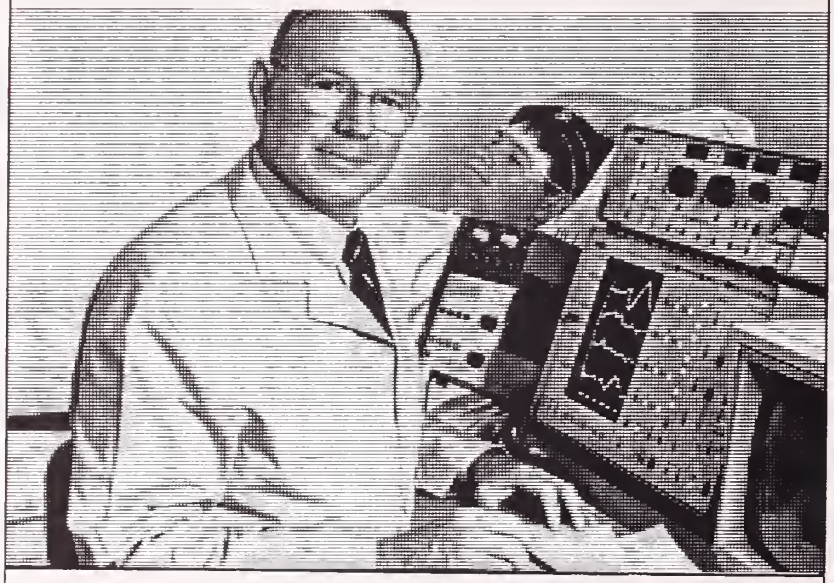

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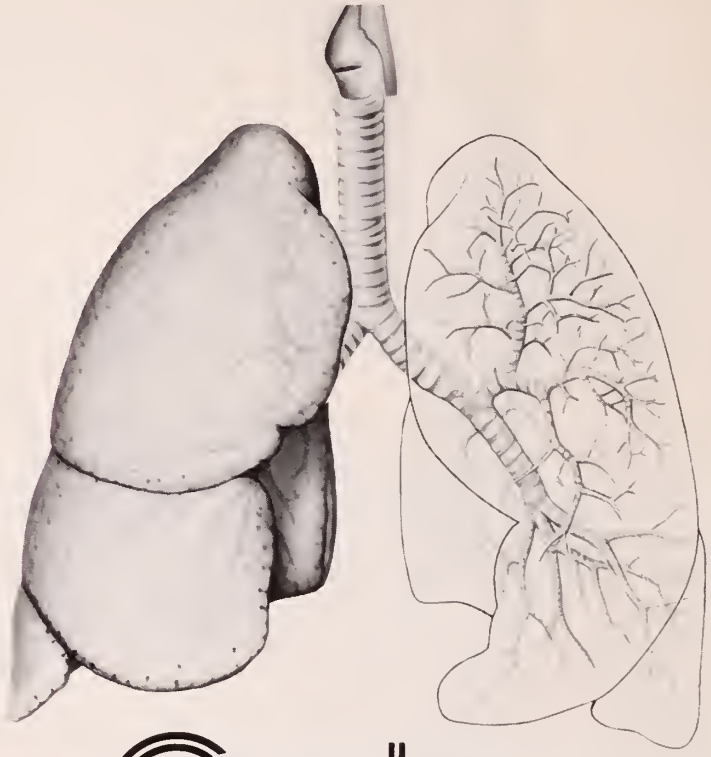

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- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
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Percutaneous Balloon Pulmonary Valvuloplasty

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Percutaneous balloon pulmonary valvuloplasty was performed in 10 patients with valvular pulmonic stenosis. The patients ranged in age from eight months to 10 and 11/12 years, and in weight from 6.9 to 38.5 kilograms. The procedure achieved a reduction in transvalvular gradient from a mean of 72.5 mmHg to a mean of 30.5 mmHg. No serious complications occurred. Balloon valvuloplasty appears to be a safe and effective technique for the nonoperative relief of valvular pulmonic stenosis.

Introduction

The 1982 report by Kan *et al.*[1] describing the use of polyethylene balloon catheters to relieve valvular pulmonic stenosis generated considerable interest among pediatric cardiologists. Corroborative experience soon followed,[2,3] and the technique has replaced routine surgical valvotomy in several centers.

Between May, 1984, and July, 1985, 10 patients with valvular pulmonic stenosis underwent a balloon dilatation procedure at West Virginia University Hospital. The results are described in this report.

Patients

Patients were considered eligible for pulmonary valvuloplasty if there was a gradient across the pulmonary valve of at least 40mmHg in the absence of additional cardiac abnormalities sufficiently severe to require surgery.

Twelve patients met the above criteria and 10 underwent the procedure. Two patients were found to have severe valvular stenosis with right ventricular pressure approximately twice the left ventricular pressure. It was felt that the valve orifice in these patients would be smaller than the deflated balloon, and no attempt at valvuloplasty was made.

The patients ranged in age from eight months to 10 and 11/12 years (median three and 2/12 years) and in weight from 6.9 kg to 38.5 kg (median 13.7 kg). None was felt to have symptoms related to the cardiac defect.

Methods

The patients were premedicated with an intramuscular injection of meperidine, promethazine and chlorpromazine. An arterial cannula was placed percutaneously into the left femoral artery and a sheath into the right femoral vein. Multiple pressure recordings were obtained during pull back from the main pulmonary artery to the right ventricle with simultaneous recording of systemic arterial pressure. A right ventricular cineangiogram was then performed using anteroposterior and lateral projections. A radiopaque grid was employed to measure the pulmonary valve annulus dimension in both angiographic views.

Figure 1. Lateral view of a partially inflated balloon positioned across the pulmonary valve. The position of the stenotic valve is indicated by an indentation or "waist" (arrow) near the mid portion of the balloon.

An appropriate dilatation catheter was selected based on the measured dimensions of the pulmonary annulus. The balloon size chosen ranged from 80 per cent to 120 per cent of the pulmonary annulus size, the larger balloons being employed in the later patients in the series.

A guide wire was then placed in the distal left pulmonary artery and the balloon catheter advanced over the guide wire and positioned across the pulmonary valve. The balloon was rapidly inflated with a dilute saline-contrast mixture. During initial inflation, a well-defined indentation or "waist," representing the narrowed valve orifice, could be seen (Figure 1). Further inflation resulted in obliteration of the "waist" as the balloon assumed a tubular configuration (Figure 2). Deflation was begun as soon as the "waist" was obliterated. The entire inflation-deflation cycle routinely lasted approximately five seconds. The procedure was repeated three to five times.

Following dilatation, several additional main pulmonary artery-to-right ventricle pressure recordings were obtained.

TABLE

Patient No.	Age	WT(kg)	Pre-Balloon Prv(mmHg)	Pre-Balloon Prv/Plv	Pre-Balloon △(mmMg)	Post-Balloon △(mmHg)
1	2 8/12	18.7	145	1.20	125	20°
2	3 7/12	12.0	105	.95	100	40
3	10 11/12	38.5	100	.83	70	40
4	16 9/12	66.5	80	.57	60	35
5	2 5/12	10.4	100	.83	85	30
6	5 2/12	19	80	.72	55	40
7	4 5/12	15.5	80	.72	50	35
8	1 4/12	10.2	80	.80	65	20
9	8/12	6.9	70	.88	50	15°
10	1 2/12	7.7	80	.83	65	30

° Developed subpulmonic stenosis.
Prv = Right ventricular pressure
Prv/Plv = Ratio of right ventricular pressure to left ventricular pressure
△ = Gradient across pulmonay valve

Figure 2. Lateral view of the fully inflated balloon. The "waist" has been obliterated and the valve is fully dilated.

Results

The results are summarized in the Table. The gradient across the pulmonary valve was reduced in all cases. The mean gradient decreased from 72.5 mmHg pre-dilatation to 30.5 mmHg following the procedure. More substantial reduction was obtained when a balloon with a diameter larger than the pulmonary valve annulus diameter was selected.

Two patients developed significant subvalvular stenosis following valvuloplasty. One was re-catheterized one year following valvuloplasty, was found to have continued subpulmonic stenosis, and has been scheduled for surgery. The other, who also has a nonobstructive hypertrophic cardiomyopathy, was treated with oral propranolol and is awaiting re-catheterization.

No patient experienced a significant complication. Transient, mild bradycardia occurred during inflation of the balloon, but serious arrhythmias were not encountered. One patient developed minimal bleeding from the femoral vein approximately two hours following the procedure. All patients were discharged one day following catheterization.

Discussion

Balloon dilatation of peripheral vascular stenoses has been successfully employed for more than 20 years. Recently, there has been widespread interest in the application of balloon dilatation to a variety of cardiovascular problems including pulmonary and aortic stenosis, coarctation of the aorta, and peripheral pulmonic stenoses. Experience has been most extensive among patients with valvular pulmonic stenosis, and the results have been excellent with very little morbidity and no reported mortality. Our experience has been similarly gratifying with uniform reduction of valvular gradients to levels below that usually felt to require surgery. Initially, we were reluctant to use balloons which were larger than the pulmonary annulus. Recent reports, however, have indicated that balloons 120 to 140 per cent of the pulmonary

annulus dimension may be employed safely, and we are now using larger balloons with a more substantial reduction in gradient.

Two of our patients developed significant subpulmonic stenosis following relief of the valvular narrowing. Others have reported similar patients,[4] the phenomenon apparently analogous to the "suicide right ventricle" described after surgical valvotomy. This subpulmonic obstruction has been reported to regress in some, but by no means all, patients.

The long-term results of pulmonary valvuloplasty remain to be determined. Early re-catheterization has demonstrated that the reduction in gradient persists for at least one to two years following the procedure.[5] Surgical observation of the pulmonary valve following valvuloplasty has demonstrated that the valve is torn rather than stretched,[2] so it seems probable that the long-term results will be similar to surgical valvotomy.

The risks associated with percutaneous dilatation of left-sided obstructive lesion appear to be higher than those experienced with pulmonary valvuloplasty.[6] Deaths have followed dilatation of both aortic stenosis and coarctation, and the possibility of major systemic embolization remains a concern. In addition, the large size of the balloon catheter has, in some cases, resulted in damage to the femoral artery. Nonetheless, results have been encouraging in certain types of left-sided lesions, and we recently have begun to attempt dilatation of selected patients with coarctation of the aorta.

It seems clear that the trend in pediatric cardiac catheterization is away from diagnostic procedures and toward interventional ones. Pulmonary valvuloplasty is becoming established as a safe and effective procedure. Therapy for other stenotic lesions holds promise, and techniques for transcatheter closure of patent ductus arteriosus and uncomplicated atrial septal defects are being developed. The result will undoubtedly be a reduction in mortality, morbidity and health care costs for patients with a wide variety of congenital heart defects.

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Toxic Shock Syndrome Associated With Diaphragm Use

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Toxic shock syndrome (TSS) is a well-recognized entity characterized by fever, rash, headache, vomiting, diarrhea, shock, and multi-system failure.[1] First reported in children by Todd and associates,[2] it was later connected to tampon use. We wish to present a case associated with the use of a diaphragm.

Case Report

A 31-year-old white female presented to the office in shock. Brief questioning revealed vomiting and diarrhea associated with myalgias, headache, and meningismus for two days prior to presentation. She also complained of bilateral lower quadrant pain referred to the scapulae.

The temperature was 38.5°C, pulse was 140, and the blood pressure was unobtainable. Dehydration was estimated at greater than 10 per cent of total body water. Attempts at IV placement were unsuccessful. She was immediately transferred to the hospital by paramedics who placed her in MAST trousers.

In the CCU she was fluid-resuscitated with lactated Ringers solution by central vein. The blood pressure rose to 110/80, pulse was 140, and temperature was 38.5°C.

History of scanty menses three weeks prior was given. The patient had been on oral contraceptives until that point. She had intercourse the day before the illness, using a diaphragm for birth control. The diaphragm was in place for 10 hours. She complained of dysuria but not urgency or frequency.

Past medical history revealed frequent bouts of cystitis. There was no history of ingestion of wild game, raw milk, or illness in the family. The remainder of the review of systems was noncontributory.

The skin was flushed, and the patient alert and oriented. Eyes, ears, nose, throat, heart and lungs were normal. Mild meningismus was present. Bowel sounds were absent with rebound and guarding present. The tenderness was worse in the right lower quadrant. No foreign bodies or vaginal discharge were noted on pelvic examination. Tenderness on cervical motion was present. No adenexal or rectal masses were palpable.

Admission laboratory studies revealed a white count of 33.500/cu mm with four metamyelocytes, 55 stabs, 37 polys, and four lymphocytes. The hemoglobin was 15.9 g/dl and platelets 314,000/cu mm. Blood and urine pregnancy tests were negative. Serum creatinine was 4.5 mg/dl, glucose 132 mg/dl, sodium 134 meq/dl, potassium 5.0 meq/dl, BUN 37 mg/dl, and chloride 132 meq/dl. Urinalysis showed 14-16 WBC/hpf with 50 mg/dl of albumin.

Chest roentgenogram and flat and upright film of the abdomen were normal. A pelvic ultrasound showed

a mass near the cervix thought to be either bowel or abscess.

Exploratory Laparotomy

A diagnosis of septic shock secondary to ruptured hollow viscus or tubo-ovarian abscess was entertained. Massive amounts of I.V. fluids, ampicillin, clindamycin, and methylprednisolone were administered. The patient was taken to surgery for an exploratory laparotomy on advice of both gynecological and surgical consultants.

At laparotomy the abdominal and pelvic contents were grossly normal. Biopsies of some large omental and mesenteric lymph nodes were performed along with appendectomy. The small bowel serosa had granular areas which were biopsied along with a cyst on the serosa. On microscopic examination, the nodes showed sinus histiocytosis and focal fibrosis. The serosal cyst was a benign inclusion cyst and the appendix was normal.

Following surgery, hematology consultation was obtained. It was the opinion of the consultant that the leukocytosis was in response to shock. A diagnosis of shigella or salmonella was entertained, and gentamicin was administered.

On the second hospital day the cardiovascular status stabilized with normotension, sinus rhythm, and defervesence. A sunburn-like rash was noted on the abdomen. Conjunctival infection and a reddened oropharynx were present. The external genitals were tender, and a vaginal discharge was noted and cultured.

Gram stain of the vaginal exudate revealed gram-positive cocci in clusters and gram-negative rods, and the vaginal culture grew E. coli. Febrile and cold agglutins were negative. The calcium was 6.7 mg/dl, creatinine 1.8 mg/dl, LDH 237 U/1, SGOT 58 U/1, inorganic phosphorus 4.8 g/dl, and magnesium 1.4 mg/dl. Fibrin split products were greater than 10 but less than 40 mg/ml. Fibrinogen level, PT and PTT were normal. Platelets were 113,000/cu mm and the hemoglobin was 12.1 g/dl. Throat and blood cultures were negative. The white blood count had decreased to 26,000/cu mm with two metamyelocytes, 50 stabs, 44 polys, and four monocytes. Dohle bodies were noted.

TABLE

TSS Case Definition[3]

1. Fever (temperature > 38.9°C, 102°F)
2. Rash (diffuse macular erythroderma)
3. Desquamation, 1-2 weeks after onset of illness particularly of palms and soles
4. Hypotension (systolic blood pressure < 90 mm Hg for adults or < 5th percentile by age for children < 16 years of age, or orthostatic syncope)
5. Involvement of three or more of the following organ systems:
   - A. Gastrointestinal (vomiting or diarrhea at onset of illness)
   - B. Muscular (severe myalgia or creatine phosphokinase level twice upper limits of normal for laboratory)
   - C. Mucous membrane (vaginal, oropharyngeal, or conjunctival hyperemia)
   - D. Renal (blood urea nitrogen or creatinine level > twice upper limits of normal for laboratory or > 5 white blood cells per high-power field in absence of urinary tract infection)
   - E. Hepatic (total bilirubin, serum glutamic oxaloacetic transaminase or serum glutamic pyruvic transaminase > twice upper limits of normal for laboratory)
   - F. Hematologic (platelets < 100,000/mm)
   - G. Central nervous system (disorientation or alterations in consciousness without focal neurological signs when fever and hypotension are absent)
6. Negative results on the following tests, if obtained:
   - A. Blood, throat, or cerebrospinal fluid cultures
   - B. Serologic tests for Rocky Mountain spotted fever, leptospirosis, or measles.

Diagnosis of TSS Made

A diagnosis of toxic shock syndrome was made. Ampicillin was stopped, and nafcillin was started. On the third hospital day menstrual flow started. The remainder of the hospital course was complicated by the metabolic abnormalities of hypophosphatemia, hypomagnesiumemia, hypocalcemia, bone marrow suppression secondary to sepsis, and facial desquamation. The renal function reverted to normal. She was discharged on the eighth hospital day on oral contraceptives, vitamins, calcium, and dicloxicillin. She was instructed not to use diaphragms.

Two weeks later the patient presented with an intensely pruritic generalized maculopapular rash with desquamation of the hands but not of the soles. The nail beds appeared loosened. A chemical profile was normal and she has remained well since.

Discussion

Toxic shock syndrome is a disease caused by exotoxins produced by Staphylococcus aureus. It is characterized by the features in the Table.[3] No diagnostic tests for toxic shock syndrome are commercially available, so diagnosis rests solely on clinical grounds. Our patient met these criteria listed in the Table with the exception that her fever was only 38.5°C.

Toxic shock has been most commonly associated with tampon usage, although a handful of cases have been reported with diaphragm use.[4-13] Another possibility is sexual transmission of the toxin-producing staphylococcus.[14] Because of the lack of tampon usage by our patient and following a search of the current literature, we feel the diaphragm is the most likely etiologic agent in this case report of TSS.

Apparently the incidence of TSS is low with diaphragm use, but it should be considered in a patient with this presentation. Less severe cases of TSS are easily overlooked[15] and misdiagnosed as gastroenteritis or viral syndromes. A specific pathophysiologic mechanism has not been brought forth in diaphragm-associated TSS. Perhaps further investigation will shed light on the cause of TSS in diaphragm-related cases as occurred with tampon use. Caution may be warranted in prescribing diaphragms to patients with a prior history of toxic shock syndromes.

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Medical Grand Rounds

West Virginia University Medical Center

Edited by Irma H. Ullrich, M. D., Professor of Medicine

Prevention Of Deep Venous Thrombosis

Discussant:

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Deep venous thrombosis is a common disorder in medical and surgical patients and is associated with significant morbidity and, indirectly, mortality. Several risk factors have been identified for the development of venous thrombosis. Mechanical and pharmacologic methods of thromboprophylaxis have been demonstrated to be effective in preventing postoperative thrombosis in various populations of surgical patients. Various methods are more effective in different subsets of surgical patients.

Fewer data are available on medical patients, specifically those with acute myocardial infarction, congestive heart failure and recent stroke. Choice of thromboprophylaxis method must take into account the group of patients being treated, risks of treatment, and practical ease of administration.

Deep venous thrombosis is a common problem for the hospitalized surgical or medical patient. Estimates of the prevalence of deep venous thrombosis are as high as 1,000,000 to 1,500,000 cases annually in the United States.[1] Venous thrombosis can be an important cause of patient morbidity and, indirectly, patient mortality. There is a large body of evidence that supports the efficacy and safety of prophylactic therapy in the prevention of venous thrombosis in certain groups of patients at increased risk for developing the disorder. This paper will review the sequelae, risk factors. diagnosis, and prevention of deep venous thrombosis.

Sequelae of Venous Thrombosis

The two major sequelae of deep venous thrombosis are pulmonary embolism and the postphlebitic syndrome. ^{125}I-fibrinogen scanning and contrast venography in surgical patients demonstrate that the majority of venous thrombi form in calf veins but only 20 per cent extend proximally into the popliteal, femoral and iliac veins. Pulmonary embolism occurs in 50 per cent of patients with proximally extending leg vein thrombosis.[2] Extrapolation from autopsy series estimates pulmonary embolism to be the sole cause or a major contributory cause in 142,000 to 200,000 deaths annually in the United States.[3] Including non-fatal pulmonary emboli raises the estimate to 300,000 cases annually in the United States.[1]

The postphlebitic syndrome consists of chronic edema, discomfort, lipo-

There is a large body of evidence that supports the efficacy and safety of prophylactic therapy in the prevention of venous thrombosis in certain groups of patients at increased risk for developing the disorder.

sclerosis, and ulceration of the lower leg. It is attributed to the venous hypertension that develops following destruction of venous valves from thrombosis, especially valves in the popliteal vein.[4] It occurs most commonly five to 15 years after deep venous thrombosis. The reported frequency of developing the postphlebitic syndrome ranges from a low of 0-10 per cent in asymptomatic patients with thrombus limited to the calf veins to a high of 50-86 per cent in patients with symptomatic pelvic or femoral vein thrombosis.[4,5,6] The frequency of developing the postphlebitic syndrome is greater in older patients and increases with the passage of time after the occurrence of the acute venous thrombosis.[5,6]

Prevention of deep venous thrombosis would indirectly reduce the

morbidity and mortality due to pulmonary embolism and the postphlebitic syndrome as well as directly reduce the morbidity due to the acute thrombotic event. Ideally, patients at increased risk for developing deep venous thrombosis would be identifiable so that preventive therapy could be directed toward those patients who would benefit from it the most.

Risk Factors

Virchow's triad of changes in the vessel wall, changes in venous blood flow, and changes in the properties of the blood itself still form the basis for our understanding of the pathophysiology of the development of venous thrombosis.[5] The pathophysiology of deep venous thrombosis is discussed in detail by Bergqvist in his monograph[5] and by Schafer (1985) in his review of hypercoagulable states.[7]

Deep venous thrombosis remains a multifactorial disease. Several risk factors have been identified for the development of venous thrombosis (Table 1).[1,5,7,8] The incidence of venous thrombosis may be higher in the United States, Canada and Europe compared to Asia and Africa, and the frequency greater in December and January in the United States.[5] The risk factors in Table 2 are based on autopsy series and on clinical and epidemiologic studies of various populations of patients.[5] Many of the studies were done on surgical patients, and findings may not apply directly to the nonsurgical patient. Many of the risk factors may have a cumulative effect on the risk of developing venous thrombosis although no reliable scale has been developed for assessing the effect of multiple risk factors that may be present in any given patient.[5] Currently there are no routine laboratory tests available to determine a patient's risk of developing deep venous thrombosis,[5,7] and the assessment of an individual patient's risk remains a clinical one.

TABLE 1

I. Primary Hypercoagulable States
Antithrombin III deficiency
Congenital protein C or S deficiencies
Plasminogen activator deficiency
Plasminogen, Fibrinogen abnormalities
Lupus anticoagulant
II. Secondary Hypercoagulable States
Previous deep venous thrombosis
Malignancy - adenocarcinoma, myeloproliferative disorders
Immobilization
Pregnancy, Puerperium
Obesity
Postoperative state
Paralysis - stroke, spinal cord injury
Cardiovascular disease - acute myocardial infarction, congestive heart failure
Non-O blood type
Exogenous estrogens, birth control pills
Varicose veins
Age
Behcet's disease
Cushing's disease
Homocystinuria
? Chemotherapy, radiation therapy

TABLE 2

I. Mechanical
Leg elevation
Early ambulation
Elastic stockings - graded
Physiotherapy
Electric stimulation of calf muscles
Passive leg exercise intraoperatively
Pneumatic calf compression
II. Pharmacologic
Dicoumarol, warfarin
Heparin - sodium, calcium
Platelet function inhibitors
Dextran
Dihydroergotamine
Low molecular weight heparin

Diagnosis

One of the difficulties in assessing the effectiveness of prophylactic therapy for the prevention of deep venous thrombosis arises in measuring the presence of venous thrombosis. Clinical examination is not reliable.[5,6,9] In a review by Gallus, the accuracy of clinical diagnosis of venous thrombosis as demonstrated by ascending venography ranged from 43-54 per cent.[6] One setting in which clinical examination is accurate is the occurrence of massive iliofemoral vein thrombosis with resultant sudden swelling of the whole leg associated with a tight or bursting sensation, surface cyanosis, and tenderness over the femoral vein.[6,10] This clinical situation has been designated phlegmasia cerulea dolens.

The "gold standard" for the diagnosis of venous thrombosis is ascending contrast venography. Diagnosis is based on evidence of a persistent filling defect on several views of the vein. Indirect evidence for thrombosis includes flow in collateral veins, nonfilling of the deep system and abrupt termination of the column of contrast medium at a constant site.[6] The disadvantages of contrast venography include patient discomfort, thrombophlebitis induced by the contrast medium, and hypersensitivity reaction. It has the disadvantage of yielding information only for the day on which the test is performed. It would certainly be difficult to perform contrast venography daily during an extended period of increased risk for the development of venous thrombosis.

The two non-invasive tests that are utilized most often in large prophylaxis trials to diagnose deep venous thrombosis are ^{125}I-fibrinogen scanning and, less often, impedance plethysmography.

The two non-invasive tests that are utilized most often in large prophylaxis trials to diagnose deep venous thrombosis are ^{125}I-fibrinogen scanning and, less often, impedance plethysmography. In ^{125}I-fibrinogen scanning, radiolabeled fibrinogen is injected intravenously and becomes incorporated into propagating thrombus. Diagnosis of venous thrombosis is based on increased surface radioactivity measured over a thrombus.[11] Fibrinogen scanning detects approximately 90 per cent of acute calf vein thrombi but only 60-80 per cent of more proximal leg vein thrombi.[10] The test is very insensitive for the detection of upper thigh or pelvic vein thrombi.[10] The advantage of this test lies in the ease of performing the measurements and in the decreased morbidity when compared to contrast venography. Fibrinogen scanning is particularly useful in large clinical trials because the radiolabeled fibrinogen can be injected upon entry into the study and the patient scanned daily for development of venous thrombosis.

Impedance plethysmography utilizes a pneumatic occlusive thigh cuff

to develop temporary occlusion of venous outflow from the leg. With release of the cuff there is normally a prompt drop in blood volume of the calf which leads to a change in electrical resistance or impedance as measured on the skin surface. This anticipated change in impedance is diminished in the presence of deep venous thrombosis due to the decreased rate of venous outflow from the leg. Impedance plethysmography is sensitive and specific in the diagnosis of clinically suspected thrombosis of the popliteal, femoral or iliac veins. In a review by Null *et al.*[10] the cumulative sensitivity was reported to be 95 per cent and the cumulative specificity 96 per cent. Impedance plethysmography is not useful in the diagnosis of calf vein thrombosis because it detects only 20 per cent of these thrombi.[10] False positive impedance plethysmography tests occur when the patient is positioned improperly, when leg muscle contraction is present, when the vein is compressed by an extravascular mass, or when outflow is impaired by increased central venous pressure as occurs in congestive heart failure.[10]

Prevention: Surgical Patients

Preventive therapy should be effective, inexpensive, easily administered, and safe for patients. Nearly all clinical trials evaluating the prevention of deep venous thrombosis have been performed on surgical patients. The measured outcome is either postoperative thrombosis or pulmonary embolism, or both. Prophylactic intervention techniques that have been evaluated include mechanical and pharmacologic therapies (Table 2).[2,5]

Difficulties arise in attempts to compare various clinical trials of thromboprophylaxis because of different patient populations, criteria for improvement, and differences in amount and duration of therapy among them. Despite these pitfalls, trials utilizing the various prophylactic methods in Table 2 have been compiled and compared in two recent reviews.[2,5]

Mechanical Methods

Leg elevation increased the rate of clearance of radiopaque dye from calf veins but did not reduce the incidence of thrombosis in patients undergoing elective general surgery.[5] Similarly, physiotherapy did not show any thromboprophylactic effect.[5]

Electric stimulation of calf muscles resulting in brisk plantar flexion of the foot, with more than a five-second resting period between stimuli, does result in faster clearance of radiocontrast from calf veins.[2] Only four of eight studies utilizing this thromboprophylaxis method showed a statistically significant reduction of postoperative venous thromboembolism. Furthermore, each of the studies had too few patients to draw conclusions about prevention of pulmonary embolism.[5] Electrical stimulation of calf muscles is not practical and cannot be used in the conscious patient.

Studies evaluating the thromboprophylactic effect of compression stockings showed mixed results. The greatest clearance rate for radiopaque dye from the whole leg is achieved with graded compression. In general surgery patients, five of six studies showed a statistically significant reduction in postoperative venous thrombosis.[5] These studies also had small numbers of patients and did not assess proximal thrombosis or pulmonary embolism prevention.

In 23 of 25 studies of general or abdominal surgery patients, low-dose heparin resulted in a statistically significant reduction in postoperative deep venous thrombosis as measured by ^{125}I-fibrinogen scanning.

Intermittent pneumatic calf compression has been evaluated utilizing several types of compressive devices with different patterns and magnitudes of compression.[5] The time of initiation of pumping and the duration of pumping have varied. A statistically significant reduction of postoperative venous thrombosis was demonstrated in six of nine studies with general surgery patients and in all of five studies with neurosurgery patients. Results are not as good for elective hip surgery patients or general surgery patients with malignancy.[5] The advantage of this method of prophylaxis is the low incidence of complications. Slight pain and a feeling of heat are the most common discomforts experienced.[5] Pneumatic calf compression is particularly advantageous for neurosurgical patients where bleeding complications from pharmacologic methods of prophylaxis may not be acceptable.

Oral Anticoagulants

Dicoumarol and warfarin (Coumadin®) are oral anticoagulants that take five days of therapy to achieve on antithrombotic effect,[12] thus limiting their use in many settings in which prevention of deep venous thrombosis is desired. Prophylaxis with oral anticoagulants reduced the incidence of postoperative thrombosis in six of seven trials of patients undergoing hip fracture surgery as compared to controls who were untreated.[5] The major disadvantages are the delay in achieving anticoagulation, the need to monitor prothrombin time and adjust medication doses appropriately, the multiple drug-drug interactions that complicate therapy, and the high incidence of bleeding. The incidence of major hemorrhage reportedly ranges from 1.4 to 8.1 per cent and the risk of bleeding is related to the intensity of anticoagulation therapy.[13] A rare complication of oral anticoagulants is skin necrosis.[12]

Low-Dose Heparin

Heparin, via antithrombin III, inhibits thrombin and activated factor X (Xa). At low doses the latter effect predominates.[5] The use of low-dose heparin for the prevention of deep venous thrombosis has been evaluated extensively in surgical patients. In 23 of 25 studies of general or abdominal surgery patients, low-dose heparin resulted in a statistically significant reduction in postoperative deep venous thrombosis as measured by ^{125}I-fibrinogen scanning.[5] The two studies that did not demonstrate a significant reduction in postoperative venous thrombosis had an unusually low incidence of thrombosis in their control patients.[2,5] The studies involving surgery for malignant disease also

demonstrated a significant reduction in postoperative deep venous thrombosis with low-dose heparin.[2]

Low-dose heparin therapy resulted in a statistically significant reduction in the incidence of postoperative venous thrombosis in one neurosurgery, three gynecologic surgery, and two thoracic surgery series.[5] The results are not so clear in urologic surgery patients, with two of four series showing no reduction in postoperative venous thrombosis.[2,5] In all of these series ^{125}I-fibrinogen scanning was the method used for diagnosis of venous thrombosis.

The effect of low-dose heparin in prevention of thrombosis in hip fracture patients undergoing surgery is not clearly demonstrated. In four of nine series reviewed, there was no statistically significant reduction in thrombosis.[5] Results are a bit more encouraging in patients undergoing elective hip surgery with nine of 12 studies demonstrating a reduction in postoperative venous thrombosis. The thromboprophylactic effect was still not as good as in general surgery patients.[5] It should be noted that all but one of these series utilized ^{125}I-fibrinogen scanning which has a high false positive rate in the region of fractures and hematoma and is not sensitive for evaluating thrombosis above the knee.[5]

It is difficult to assess hemorrhagic event rates objectively in the postoperative patient. Various measures have included impression of excessive bleeding, measurement of intraoperative blood loss, postoperative hemoglobin level, transfusion requirement, number of cases requiring reoperation due to bleeding complications, number of fatalities due to bleeding complications, and wound hematoma development.[2,5,13] In blinded studies meeting the most rigorous design criteria there was no difference in death due to bleeding, reoperation due to bleeding, transfusion requirement, impression of excessive bleeding, or rate of intraoperative bleeding between the low-dose heparin group and the control group.[13] There was a lower postoperative hemoglobin in the low-dose heparin group. There was an increase in transfusion requirement and decrease in postoperative hemoglobin level in only two of six unblinded studies of general surgery patients.[13] Low-dose heparin therapy appears to be a safe and effective prophylactic therapy for prevention of thrombosis in certain populations of surgical patients.

Dihydroergotamine Mesylate

Dihydroergotamine mesylate (D.H.E.®) is an alpha-adrenergic receptor agonist/antagonist that increases the tone of venous walls by stimulating smooth muscle contraction. This leads to an increase in the venous flow rate in the extremities.[5] It should be noted that dihydroergotamine also increases systolic blood pressure, pulmonary artery pressure, stroke volume and central venous pressure.[5]

Dihydroergotamine has been evaluated alone and in combination with low-dose heparin. In four of four trials with general surgery patients there was a statistically significant reduction in postoperative thrombosis when compared to controls.[5] In two trials with general and gynecologic surgery patients there was a significant reduction in postoperative thrombosis in patients treated with a combination of low-dose heparin and dihydroergotamine when compared to patients treated with low-dose heparin alone.[5] In four trials with elective hip surgery patients the combination of low-dose heparin and dihydroergotamine was significantly more effective than dihydroergotamine (one trial) or low-dose heparin alone (three trials). In one study with general surgery patients the combination of 2,500 units of heparin and 0.5 mg dihydroergotamine subcutaneously every 12 hours was as effective as 5,000 units of heparin and 0.5 mg dihydroergotamine subcutaneously every 12 hours. This lower dose heparin-dihydroergotamine combination was associated with fewer bleeding complications.[5]

Dihydroergotamine has been evaluated alone and in combination with low-dose heparin. In four of four trials with general surgery patients there was a statistically significant reduction in postoperative thrombosis when compared to controls.

Adverse effects of dihydroergotamine include an oxytocin-like effect on uterine contraction, shortened bowel transit time, and rarely, vascular spasm. It is contraindicated in pregnant patients and patients with angina, heart failure, peripheral vascular disease, severe hypertension, and liver or kidney disease.

Platelet-Inhibiting Drugs

The platelet-inhibiting drugs most commonly evaluated are acetylsalicylic acid (ASA), dipyridamole (Persantine®), and sulfinpyrazone (Anturane®). In controlled studies of ASA prophylaxis there was no significant reduction of postoperative venous thrombosis in general and abdominal surgery patients.[5] In one study of elective hip surgery patients a significant reduction in postoperative thrombosis occurred in males only with a dose of 600 mg b.i.d.[5] A similar significant reduction in venous thrombosis occurred in knee surgery patients given 1,300 mg ASA t.i.d.[5] ^{125}I-fibrinogen scanning was used in both studies.

Dipyridamole was not effective in reducing the incidence of postoperative thrombosis in hip fracture patients.[5] A combination of ASA and dipyridamole did achieve a significant reduction in postoperative thrombosis as measured by ^{125}I-fibrinogen scanning in three of four series with general surgery patients.[5] The combination was not effective in elective hip surgery or hip fracture surgery patients.[5]

Sulfinpyrazone was not effective in decreasing the incidence of postoperative thrombosis in two trials of general surgery patients.[5]

Dextran

Dextran is a polysaccharide volume expander. Two forms are available: dextran 70 (Macrodex®) with molecular weight 70,000, and dextran 40 (Rheomacrodex®) with molecular weight 40,000. Dextran reduces platelet adhesion to foreign surfaces, inhibits platelet aggregation, and reduces the plasma level of vonWille-

brand factor. Dextran does not affect the fibrinolytic system.[5,14] Low-molecular-weight dextran causes erythrocyte disaggregation and high-molecular-weight dextran has the opposite effect.[5]

Seven of nine trials with general surgical patients did not demonstrate a significant reduction in postoperative thrombosis in patients treated with dextran 70 when compared to controls. Similar results occurred in three of four trials with general surgical patients comparing dextran 40 to controls.[5] These studies used ^{125}I-fibrinogen scanning to diagnose venous thrombosis.

In four of five series with hip fracture patients, dextran 70 significantly reduced postoperative thrombosis as diagnosed by ^{125}I-fibrinogen scanning.[5] In contrast, both dextran 70 and dextran 40 were not effective at reducing postoperative thrombosis in elective hip surgery patients.[5]

In compiling data of several studies, use of dextran 70 results in a reduction of the incidence of fatal pulmonary embolism.[5] In a large trial comparing dextran 70 and low-dose heparin, both drug therapies resulted in similar incidences of pulmonary embolism, but no control group was included.[5]

The optimal dose, dose interval, duration, and time of first infusion of dextran remain to be determined.

The choice of therapy remains a clinical one made on risk factor assessment and type of surgical patient to be treated, and must take into account the risk of therapy.

Adverse effects include cardiac overload in patients with congestive heart failure, allergic reactions including anaphylactic shock, hemorrhage, and renal damage, especially in dehydrated patients.[5]

Various methods of thromboprophylaxis have been demonstrated to reduce the frequency of postoperative deep venous thrombosis in different subsets of surgical patients. There is evidence for the prevention of pulmonary embolism by oral anticoagulants, low-dose heparin and dextran 70. Not all surgical patients benefit from the same method of prophylaxis. Different methods of prophylaxis carry different risks. The choice of therapy remains a clinical one made on risk factor assessment and type of surgical patient to be treated, and must take into account the risk of therapy.

Prevention: Nonsurgical Patients

Various subgroups of surgical patients respond differently to methods available for prevention of postoperative deep venous thrombosis. Extrapolation of results from studies on surgical patients to the nonsurgical patient may not be accurate. Many of the risk factors in Table 1 are present in the nonsurgical patient but, unfortunately, there is not a large body of research on thromboprophylaxis in such patients. Thromboprophylaxis studies have been performed with patients suffering acute myocardial infarction, congestive heart failure and stroke.

The incidence of deep venous thrombosis following acute myocardial infarction is between 19 and 37 per cent when diagnosis is based on ^{125}I-fibrinogen scanning.[15] Risk factors for the development of deep venous thrombosis in the postinfarction patient include age greater than 50, prior history of angina, development of heart failure, or arrhythmias.[16] Early mobilization, defined as sitting and standing by the bedside, resulted in a significant reduction in post-acute infarction deep venous thrombosis in one small study.[17] This effect seemed to be more pronounced in Killip class III patients than Killip class II patients. It should be noted that all the patients in this study wore TED stockings.

In three trials, low-dose heparin therapy significantly reduced the incidence of deep venous thrombosis in postmyocardial infarction patients compared to untreated controls.[18,19,20] In a fourth trial there was no reduction of venous thrombosis in the group treated with low-dose heparin.[21] All four of these studies used ^{125}I-fibrinogen scanning to diagnose deep venous thrombosis.

Full-dose heparinization, with and without oral anticoagulation, and oral anticoagulation alone decrease the incidence of postinfarction venous thrombosis and pulmonary embolism[22] but these therapeutic methods have a greater risk of hemorrhage when compared to low-dose heparin therapy.[5]

Medical patients with congestive heart failure are at increased risk for the development of deep venous thrombosis.[5,22] Low-dose heparin significantly reduced the incidence of venous thrombosis as measured by ^{125}I-fibrinogen scanning in a small group of patients compared to untreated controls.[18]

Choice of prophylactic method must take into account efficacy for the specific patient to be treated, risk of therapy, and practical ease of administration.

Low-dose heparin prophylaxis significantly reduced the incidence of venous thrombosis in patients with acute cerebrovascular accident when compared to untreated controls.[23] Therapy was begun within 48 hours of the cerebrovascular accident and continued for 14 days. Venous thrombosis was reduced from 75 per cent to 12.5 per cent as measured by ^{125}I-fibrinogen scanning. There were no hemorrhagic complications.

Summary

Deep venous thrombosis is a common disorder in surgical and medical patients. The sequelae of the postphlebitic syndrome and pulmonary embolism entail significant morbidity and mortality. Several risk factors for the development of venous thrombosis have been identified and can be utilized clinically. Various safe, efficacious, and easily administered thromboprophylactic measures are available to the clinician. Different prophylactic methods are more effective in different groups of surgical patients. Low-dose heparin seems to be effective for medical patients with congestive heart failure, acute myocardial infarction and recent stroke. Choice of prophylactic method must take into account efficacy for the specific patient to be treated, risk of therapy, and practical ease of administration.

Acknowledgement

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Following are the generic drugs mentioned in the above article, with trade-name equivalents shown in parentheses: dicoumarol, warfarin (Coumadin), heparin, dihydroergotamine mesylate (D.H.E.), acetylsalicylic acid, dipyridamole (Persantine), sulfinpyrazone (Anturane), dextran 70 (Macrodex), dextran 40 (Rheomacrodex).

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Two Drugs Equally Effective For Asthma

A four-week study involving 20 children with chronic asthma found that two sustained-release theophylline preparations were equally safe and effective, according to researchers from UCLA reporting in the April *American Journal of Diseases of Children*. Theo-Dur and Uniphyl were compared for drug concentrations and clinical efficacy in a randomized, double-blind, crossover study. Blood levels of theophylline were not significantly different, say Gary Rachelefsky, M. D., and colleagues. "Uniphyl provided less (but not significantly) deviation between peak and trough levels," they say, adding that analysis of individual patient data, however, did not reveal a predictable relationship between blood-drug concentrations and pulmonary function.

The Personal Aftermath Of West Virginia's Largest Malpractice Verdict

J. ZEB. WRIGHT, Ph.D.

When Dr. Vernon J. Magnus returned to Premier, near Welch, from his two-week trip to the International Conference of Christian Physicians in India, his wife held news of a malpractice summons from him. He arrived exhausted and suffering from jet lag and Dorothy wanted him to have one good night's sleep before she told him that the parents of two and one-half-year-old Michael Roberts had sued him for $20 million.

"It was as though a curtain had been dropped between our problems and the community." — Dorothy Magnus

When the sheriff brought the summons over days earlier, Dorothy half expected it was about the Roberts child, for rumors had circulated that attorneys had been active in the community. When her eyes came to Michael's name, however, she could read no further. Hurt welled up in her and for a moment she imagined that they may just possibly lose all they had worked for.

Since meeting her Canadian-born husband following the completion of his medical degree at the University of Alberta, they had lived in Portland, Seattle, Philadelphia and Devonshire County, England, as he completed a total of seven surgical internships, residencies and fellowships. His specialized post-doctoral work had been in thoracic surgery.

Summons Delivered

The Magnus' youngest child, 13-year-old Timothy, saw his mother trying to hide her tears, and retrieved the summons from a nearby table. As he read aloud, "$20 million," Dorothy quietly corrected him: "You're reading the zero's wrong."

As she looked for herself, however, she realized that, indeed, her son was correct, for the amount was written out — "twenty million dollars."

For the first time since arriving in Welch, the Magnus' home telephone was out of order. "I realized that even if I had a working phone I would not be able to reach Vernon in his Indian village," she explained.

The next morning, she walked to a neighbor's house and called her two daughters away at school and their First Baptist Church minister, away in another town. Next, she called Stevens Clinic Hospital Administrator Joseph Peery, who urged her not to worry. He had been aware of the case from the beginning and repeated again, according to Dorothy, that the incident was an accident and nobody's fault.

The incident referred to was a small perforation of Michael's colon following a sigmoidoscopy and biopsy. Physicians in several cities had examined him 37 times during his first 24 months as he failed to thrive. Pathology later reported ulcerative colitis, suggested at 30 months of age by rectal bleeding and anemia.

No one from Stevens Clinic Hospital imagined in November of 1982 that the case would become one of the most emotionally charged litigations in the county and would end in a record $10-million verdict.

This writer has followed the case closely since 1982 and will attempt to show the aftermath of that malpractice suit on the Magnus family, leaving for others the chore of chronicling the larger picture and the present malpractice insurance quagmire.

When Doctor Magnus returned to work the next day, he carried with him the burden of the impending court trial but the worst of several scenarios he played over and over in his mind did not approach the disastrous effects which were to follow the court's 1984 ruling.

On December 31 of that year he was not able to show proof of insurance coverage to Stevens Clinic Hospital's annual privilege survey. Since his insurance had been revoked immediately following the court decision he thus lost all hospital privileges that last day of 1984.

No one from Stevens Clinic Hospital imagined in November of 1982 that the case would become one of the most emotionally charged litigations in the county and would end in a record $10-million verdict.

Much time had been consumed, and would continue with his appeal, in preparing for court.

With no insurance and no job, however, he began going in and out of dark, depressive moods. A local physician had recently committed suicide, and Doctor Magnus's family

and professional colleagues worried that he might act from his depression. Gardening had been a hobby he frequently enjoyed. Now the garden stood deserted.

Church had always been important to the Magnuses. During this darkest of times they turned even more to their religion and church for support.

The case, however, threatened to break apart the church. Michael's family also was active in First Baptist Church and the minister, upon hearing about the suit, immediately began counseling church leaders and individual members not to take sides in the litigation and to refrain completely from discussing the case until a court decision had been reached.

Michael's maternal grandparents also lived in the small town of Premier, only three houses away from the Magnus family, and operated the corner grocery store frequented by them. The Magnuses continued to stop by the store; however, that relationship also became more formal and cool.

Curtain Dropped

"Almost no one would mention anything about the case to us," explained Mrs. Magnus. "Some of our closest neighbors, for example, continued to visit us, to bring food over and, I think, to generally support us but they would not bring the subject up and would never call to ask how we felt. It was as though a curtain had been dropped between our problems and the community."

"Although I didn't know what to make of the threat, I never felt that my life, or my family's, were in danger. One of my former patients did offer me a pistol but I decided against accepting it."

Their relationship to Michael's parents, understandably, was not as civil. "The mother and father were openly hostile and on one occasion came close to threatening my life," said Doctor Magnus. "They said if I ever even tried to talk to members of their family, I may not live long enough to face court.

"Although I didn't know what to make of the threat, I never felt that my life, or my family's, were in danger. One of my former patients did offer me a pistol but I decided against accepting it."

Later, during the period after he lost his hospital privileges, he was faced with other personal problems. After returning from a medical missionary trip to Haiti, he had pancreatic surgery and several bouts with gallstones. For 13 months he also made frequent trips to the bedside of his ailing sister, who subsequently received a liver transplant.

Insurance Coverage the Problem

Doctor Magnus' primary concern, however, was getting insurance coverage. "Most of my time was spent in insurance company interviews and traveling to other states searching for a job and relicensure." He found that his former medical communities had heard about the case, and existing offers of jobs had disappeared. His joint licensure in other states, too, had been rescinded.

"No one even wanted to talk with me, particularly insurance companies," he said. "And a year and a half later I've just about exhausted prospective insurers. I'll probably be able to buy coverage from some company but the premiums probably will be so high I'll never be able to make my money back."

His objective now is to find a hospital with low malpractice insurance requirements. Stevens Clinic Hospital, he pointed out, is no longer a reasonable alternative even if he were granted readmission for its $5-million minimum is and has been one of the highest in the state.

Dr. John Cook, President of Stevens Clinic Hospital Incorporated, reflects the feeling expressed by everyone with whom this writer talked: "We'd welcome Doctor Magnus back tomorrow if he could obtain malpractice coverage. He was a very skillful surgeon with three certificates in surgery from the American Board of Surgery and the Royal (Canadian) College of Surgeons.

Doctor Not Financial Problem

"Rumors that the settlement (Stevens Clinic Hospital is paying 18 per cent of the $3 million final award by the West Virginia Supreme Court) is bankrupting our hospital are false. That suit did decide we weren't high quality despite our high attending requirements and our three ALA-approved internists. The same jury which reacted emotionally to Doctor Magnus also ruled that because we did not have, in this small hospital, a cadre of pediatric nurses, we were at fault and had to pay. Let me point out, however, that Doctor Magnus is not our present financial problem.

"We'd welcome Doctor Magnus back tomorrow if he could obtain malpractice coverage. He was a very skillful surgeon with three certificates in surgery from the American Board of Surgery and the Royal (Canadian) College of Surgeons."

"Unfortunately, we no longer have a major employer in this county, and more and more of those workers employed drive in from neighboring counties where land is available for home building.

"Another part of our problem is having another hospital (Welch Emergency) in town with a $10-million-a-year budget on which no five-per cent sales tax is paid. It's hard to compete with that kind of state-run hospital."

A large portion of Doctor Cook's personal fortune as well as the savings of just about every other hospital employee who has bought shares at reduced rates is tied up in the future of the hospital.

And, again, in talking with nurses, surgeons and other physicians, this writer could find no one who had any criticism of Doctor Magnus's surgical skills or his concern for his patients.

"What happened to Doctor Magnus could happen to any one of us," volunteered Dr. M. Kuppusami, a fellow hospital surgeon. "He has never denied that the accident occurred.

The severity of the case was greatly overblown and punishment was too severe for what happened. It was unjust and I greatly sympathize with him.

"I would also like to point out that our department long before the Roberts accident routinely required the signing of consent forms for any surgical procedure including endoscopes or biopsies. We also routinely talk to every person or, in the case of a juvenile, to a family member, and explain that if we encounter something unusual once we enter the body for diagnostic purposes, we do a biopsy. Doctor Magnus, in spite of what the plaintiff charged, did have consent for the biopsy. And, unlike what the Charleston Gazette wrote, the sigmoidoscopy he performed was a common procedure for any surgeon, including Magnus."

Solid Support Received

As he talks with prospective employers and insurance carriers, Doctor Magnus cites the solid front of support he receives from the medical community, pointing out that the strongest word used by peer groups within the hospital and from his insurance and state medical association's review panels has been "maloccurrence."

He is understandably bitter about his present unemployment and is not optimistic about the future. He has had no income since December of 1984 and his savings are running low.

He is understandably bitter about his present unemployment and is not optimistic about the future. He has had no income since December of 1984 and his savings are running low.

Effects on Children

The effects have been equally devastating for his children. The oldest, Rebecca, a National Merit Scholar, was in premed at the time of the summons. She became disaffected with medicine and turned to nursing, graduating summa cum laude. Presently she is considering leaving health care altogether.

Debbie, the second daughter, graduated last month from West Virginia Wesleyan College and will work in the field of youth social services. She, too, wants no part of medicine.

Timothy, 13 at the time he read the summons, is now a student at a private school in Asheville, North Carolina, which he asked to enter. He never wants to live in West Virginia again.

"Physicians should never turn their fate over to attorneys," he warns. "They should continually question policy and direction of their own defense attorneys."

Doctor Magnus has lost confidence in the court system. He was not tried by a jury of peers at all, he maintains, for anyone capable of understanding the complex issues involved in the accident was quickly cut from the jury by the plaintiff attorneys.

Testimony Hurts Defense

He feels the testimony of Dr. Ellen E. Hrabovsky was the point when his case was lost. "She was a professor from our own WVU Medical Center at Morgantown and she used emotional words which inflamed the jury and painted me as a callous butcher.

"Since her curriculum vita, stressing her university authority, had been splashed over the courtroom, the wind appeared to be taken out of our defense team. From that point on they wouldn't even allow me to counter absolutely false accusations. The rest of the two-week trial was out of my control — like a nightmare.

"Physicians should never turn their fate over to attorneys," he warns. "They should continually question policy and direction of their own defense attorneys." That concern should remain sharp even after the court proceedings begin, he believes. "My state medical association and insurance review panel was conducted only five days before the trial began, too late to utilize their recommendations. Although my chief defense attorney had lost time with a back problem and my review was late, my attorneys didn't even ask for a delay to give us time to prepare. Physicians must insist that friendly reviews be accomplished as early as possible so their results may be used in their defense."

With the expert medical witnesses' testimony the stage was set. The jury soon found Doctor Magnus guilty and recommended $250 million in damages. After the judge explained to the jury that damages could not exceed the amount of the suit, the jury arrived at $10 million. Recently, the West Virginia Supreme Court lowered that amount to $3 million — 82 per cent for Doctor Magnus and 18 per cent for the hospital.

Whereas the community had been "tight-lipped" prior to the court trial, the $10-million verdict brought friends, neighbors and fellow parishioners to their feet.

Whereas the community had been "tight-lipped" prior to the court trial, the $10-million verdict brought friends, neighbors and fellow parishioners to their feet.

That evening, the Magnus' home was filled with people who could only shake their heads in disbelief. And now the telephone rang incessantly.

The harm had been done, however, and West Virginia had lost a skillful surgeon.

Political Momentum Must Not Die

Not long ago, a physician friend told me "I take care of patients: I leave the politics to you guys." I didn't ask him to amplify that statement. I knew what he meant. He meant that politics either held no interest for him or that in his list of priorities, it was well down the line.

Although I don't think my friend will change, there is some evidence that an increasing number of West Virginia physicians are becoming politically active at the state and national level.

Some of us or our spouses will have to make a commitment to run for public office in West Virginia. With the large number of health-related issues brought to each session of the Legislature, it is imperative to have knowledgeable people in the House of Delegates and Senate. For the most part, politics is enjoyable and gives one a sense of accomplishment. We need to try it. We'll like it.

We need to contribute our time and our money to the campaign of those who will listen to our views. Campaign contributions do not buy votes. If so, we wouldn't want that candidate. We can only hope that by defraying the considerable costs of running for public office, we will elect a candidate who will consider the problems of medicine.

We need to keep in touch with our legislators on a year-round basis. Most of our elected officials are hard-working and serious about their responsibility. They want to be informed. They should be approached as a potential friend.

Legislators do read their mail, and the letter-writing activity of the Auxiliary during the recent session was especially effective. The letters should be personal, short, and well-written. If the legislator responds, a thank-you note is in order.

Finally, we need to maintain continued, effective lobbying during the legislative session. It's very important that our views and presence are made known in all the committee meetings where health-care bills are being considered.

It would be nice to be able to practice our profession without concern for political strategies, but even if that day ever existed, it is long since gone. Politics is the name of the game. We must all play. The alternative is for us to be ignored. That could spell disaster for the future of medicine. Please keep the momentum going.

David Z. Morgan, M. D., *President*
West Virginia State
Medical Association

Good Response In State CME Survey Essential

We urge all West Virginia doctors to respond to the questionnaire on their continuing medical education preferences and practices which will be mailed to them this month. It's been eight years since a comprehensive survey of doctors' CME needs and interests has been conducted in the state.

Improvements in the pertinence and quality of programs are the goals of the survey sponsors. the CME offices at West Virginia University School of Medicine. Charleston Area Medical Center and Marshall University School of Medicine, in cooperation with WVSMA and the West Virginia Chapter, American Academy of Family Physicians.

The sponsors are to be commended for cooperating with each other for the first time to plan coordinated, statewide CME, the need for which long has been recognized. The unified approach in dealing with common CME concerns inherently should benefit local programs as well as improve and better define the overall effort.

The questionnaire may be supplemented by interviews with doctors in selected local medical societies in the state.

We don't mean to harp on the frequently heard references to "rapidly changing medicine," but if you can believe the medical segment of the recent television series by CBS News on life in the year 2001, phenomenal changes in medical care and its delivery will be upon us in only 15 years. By then. the program predicted that such developments as "assembly line" artificial organs and a wide range of sophisticated laser surgery would be realized. Obviously. any successful CME program must keep oriented to that kind of not-so-distant future.

In order to engender quality CME for the present as well as to contemplate future CME needs. the survey sponsors are looking for some answers from state doctors: Is CME available? Does it help? What other types of CME are needed? By what other methods could (or should) CME be presented? What kinds of CME are needed in the future?

The survey results also should be applicable to WVSMA in its role as accrediting agency for state hospitals and organizations and their CME offerings. WVSMA is approved as a CME accrediting agency by the Accreditation Council for Continuing Medical Education (ACCME), the multi-sponsor national accrediting body for CME. ACCME requires that CME providers have "established procedures for identifying and analyzing CME needs and interests of prospective participants."

Results will be reported in *The Journal*, and a survey exhibit or presentation is scheduled for the WVSMA Annual Meeting, August 12-17. at the Greenbrier.

The need for current West Virginia CME data provided by the survey cannot be doubted by any prudent person sincerely concerned with achieving the best possible health care delivery in the state. Our doctors no doubt will acknowledge this need and provide a striking response.

Women In Medicine: Stamping Out Stereotypes

Women physicians are rapidly increasing in number: in 1984-85, more than 21,000 women were enrolled in medical school — nearly 32 per cent of all enrollees. But it wasn't always so; women have had quite a struggle to gain admittance to the medical community in this country. How are women physicians practicing today? Do their careers take the same paths as their male colleagues? Are women doctors well accepted by the medical establishment and the community in general? These are questions that the March issue of *The Internist*, the magazine of the American Society of Internal Medicine (ASIM). sets out to explore.

According to author Marilyn Heins. M. D.. Vice Dean of the University of Arizona College of Medicine. three factors have contributed to the recent increase in the number and percentage of women in medical school: the enactment of federal antidiscrimination legislation, the adoption — by the Association of American Medical Colleges in 1970 — of an equal opportunity resolution, and changes in women's attitudes and aspirations engendered by the feminist movement.

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While there is now equal opportunity for women to enter medicine, author Kathleen Davis, M. D., an internist and assistant professor at George Washington University Medical Center in Washington, D.C., notes that clear differences have become apparent between men and women doctors in four main areas: specialty choice, type of practice, hours worked and income. Why? "Fully three fourths of women physicians are married, and the majority — 70 per cent — of them have children," she writes. "Accordingly, women doctors tend to seek professional situations that will enable them to budget time at home with their spouses and children." What this means is that women are more likely to enter the primary care fields, more likely to work in salaried positions for health maintenance organizations, government agencies, group practices and private institutions, and more likely to work fewer hours and receive less income than their male counterparts.

This "flexible schedule" does not always work to the advantage of women physicians. Author Rudolph H. Ehrensing, M. D., Associate Medical Director at the Ochsner Clinic in New Orleans, writes, "In my clinic as well as in most large medical institutions there has been a policy about employment that has worked against the hiring of women physicians although that is by no means its purpose or intent. That policy is to offer only full-time positions."

The dual roles women physicians assume also affect other aspects of their medical careers. "Although their number is growing, their visibility is not," writes author Clair M. Carran, M. D., Immediate Past President of the American Medical Women's Association. "This is particularly evident in the ranks of organized medicine and is causing concern among its leadership."

Despite the many obstacles, author Edith Irby Jones, M. D., President of the National Medical Association, believes that "women physicians are beginning to move into the hierarchy of medical organizations . . . All signs indicate that the trend will continue."

The Internist editor, William C. Felch, M. D., commented, "All the data show that the battle waged by women for acceptance in the ranks of the medical profession has been won along every front . . ."

Our Readers Speak

Poems Submitted

I am submitting two poems for publication in the *West Virginia Medical Journal*.

Thank you for your consideration.

Romeo Y. Lim, M. D.
1306 Kanawha Boulevard East
Charleston, WV 25331

Abyss From Abscess

Surrepitiously a pain was felt in the neck,
Unsuspiciously it was just a minor heck?
Turning the neck made it real sore,
Taking analgesics still sensed a gore.

Restlessly the body tried to dispel the ache,
Relentlessly nothing could make it shake.
Swallowing became rougher and tougher,
Breathing sounded louder and harder.

Insidiously a neck lump started to rise,
Cautiously a warm compress was deemed wise.
Examining the neck, swollen and very tender,
CT scanning read a hematoma, a pretender?

Meticulously the neck was explored.
Successfully the deep menacing abscess was deflored.
Draining, then irrigating with H_2O_2,
Packing with iodoform, abyss was abated from abscess foe.

Rapture of the Carotid Rupture

Seemingly abyss from abscess was abated,
Yet the temperature continued to be elevated.
Blood cultures showed bacteremia,
The doctors murmuring what a mania.

Mindful of an impending cerebral stroke,
Intravenous heparin was infused for revoke.
The neck persisted to be tender and swollen,
Also the pharynx became more sore and molten.

Difficult it was to swallow and also to breathe,
As if encircling the neck was a heavy wreath.
Repeated x-rays revealed the pretentious hematoma,
No longer a pretender but a propitious enigma.

A superimposed abscess with a hideous leak,
The bleeding internal carotid made him weak.
Emergency exploration and ligation were done in time,
Rescued from the rapture of the carotid rupture sublime.

Editor's Note: The above arrived a few days before the celebration of William Shakespeare's birthday. There are some who might consider such a confluence of poetic endeavor to have an effect on the literary world similar to that of a turnpike head-on collision on the music world. Petty snobbery aside, however, there is something to be encouraged in any attempt at relating clinical material in verse form.

Strict Diabetic Control CME Topic For Convention

Michael J. Lewis, M. D.

"Strict Diabetic Control: Who?, How?, Why?" will be the discussion topic presented by a Morgantown physician during the WVSMA Annual Meeting August 12-17 at the Greenbrier in White Sulphur Springs.

Dr. Michael J. Lewis, Associate Professor in the Department of Family Practice at West Virginia University School of Medicine, will be the speaker for the diabetes segment of the third general scientific session Saturday morning, August 16.

General scientific sesions also are planned for Thursday and Friday mornings.

Following undergraduate and graduate studies in chemical engineering culminating with a Ph.D. at Virginia Polytechnic Institute and State University, Doctor Lewis was a research and development engineer for Union Carbide Corporation in South Charleston. He then enrolled in WVU School of Medicine where he received his M. D. degree and postgraduate training.

A Fellow of the AAFP, Doctor Lewis is a Diplomate of the American Board of Family Practice. He has published and presented papers on diverse topics in medicine and physical sciences including a workshop on Diabetes Home Monitoring at the 1985 AAFP meeting in Anaheim, California.

Doctor Lewis was in private practice for nine years in St. Marys before joining the WVU faculty.

The convention schedule will begin with a 2 P. M. meeting of the Executive Committee on Tuesday, August 12, and the usual preconvention meeting of the Council at 9:30 A. M. Wednesday. The opening scientific session will be Thursday immediately following 9 A. M. opening ceremonies.

AMA President to Speak

It was announced earlier that the current AMA President Elect (who will be installed later this month), Dr. John Coury, Jr., will address the first session of the House of Delegates Wednesday afternoon, August 13. Doctor Coury, of Port Huron, Michigan, is a general and scientific surgeon.

General Scientific sessions will offer hour-for-hour Category 1 credit.

Dr. Charles E. Turner of Huntington will be inaugurated as President to succeed Dr. David Z. Morgan of Morgantown during the second and final House session Saturday afternoon.

Previously Announced Topics

Scientific speakers and topics announced previously are:

Thursday morning: "Approach to the Solitary Nodule," Richard E. Kleinmann, M.D., Associate Professor of Medicine, WVU Charleston Division; and "Geriatric Hypertension," Frederick C. Whittier, M. D., Professor of Medicine and Chief, Section of Nephrology, WVU, Morgantown;

Friday Morning: "Polypharmacy and the Elderly," Thomas E. Finucane, M. D., Assistant Professor of Medicine, Division of Comprehensive Medicine, WVU, Morgantown; "The Judicious Use of Blood and Blood Products," Mabel M. Stevenson, M. D., Director, Tri-State Red Cross Blood Services, and Clinical Professor of Pathology, Marshall University School of Medicine; and "Non-Diabetic Endocrine Emergencies," Irma H. Ullrich, M. D., Professor of Medicine, Section of Endocrinology/Metabolism, WVU, Morgantown;

Saturday Morning: "Facts and Fads in Nutrition," C. Lawrence Kien, M. D., Ph.D., C. E. Compton Professor of Nutrition; Chief, Section of Clinical Nutrition, Departments of Medicine, Pediatrics and Biochemistry; and Co-Director, Nutrition Support Service, WVU, Morgantown.

Headache, Arthritis Talks Also

Also to be announced are papers on headaches, Thursday morning, and arthritis, Saturday morning.

An Annual Meeting registration fee of $25 for all WVSMA members has been established by Council to help offset convention expenses. A fee of $100 will be charged non-members and out-of-state physicians.

The Annual Meeting of the Auxiliary, with Jeanny (Mrs. M. V.) Kalaycioglu of Shinnston in charge as President, again will run concurrently with the WVSMA convention.

(Continued on Next Page)

Members of the Program Committe are Dr. John W. Traubert, Morgantown, Chairman; Doctor Kleinmann; and Drs. Marshall J. Carper, Charleston; Jose I. Ricard, Huntington; John A. Rizzo, Fairmont, and William N. Walker, Jr., Clarksburg.

California Group Formed To Help FA Victims

Friedreich's Ataxia Group in America, Inc., has been formed in Oakland, California, to help persons with the genetic condition first discovered by Nikolaus Friedreich of Heidelberg, Germany.

In FA there is slow, progressive loss of function of the parts of the nervous system that control coordination, and to a lesser extent, sensation and strength.

Estimates of the number of people with FA in the United States range from as low as a few thousand to as high as 20,000 or more.

FAGA primarily is committed to three goals: 1. Benefit of persons with FA and their families, especially through chapters and a newsletter. 2. Fund raising for research, and 3. Education of people with this condition, physicians and the general public including government.

Physicians desiring more information may contact FAGA at P. O. Box 11116, Oakland, CA 94611.

Ophthalmology Officers

New officers of the West Virginia Academy of Ophthalmology include Drs. Harry L. Amsbary, Parkersburg, President; Robert K. Scott II, Ronceverte, Vice-President, and Samuel A. Strickland, Charleston, Secretary-Treasurer. Elected as Directors were Drs. J. Elliott Blaydes, Bluefield; George W. Weinstein, Morgantown, and Michael Fiery, Huntington.

The election was held during the Academy's 39th annual national spring meeting at the Greenbrier April 27-30. The Academy represents 87 state ophthalmologists.

STATE UROLOGISTS MEET — The West Virginia Urological Society held its spring meeting, "Flexible Endoscopy and Lasers in Urology," in Charleston in March. In the top photo, from left, Drs. David W. Palmer, Wheeling; James W. Lane, Charleston, and Omar El-Bash, Huntington, use the flexible nephroscope on pig kidneys during the "wet lab" part of the meeting. In the bottom photo, doctors discuss interesting cases during the pyelogram conference. Making a point on the left is Dr. Richard K. Babayan of Boston, one of three physicians on the guest faculty, the others being Robert I. Kahn of San Francisco and Terrence Malloy of Philadelphia. Dr. Tara Sharma of Huntington was 1985-86 President of the Society. Dr. Rocco A. Morabito, also of Huntington, was 1985-86 Secretary and Program Chairman for the meeting.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

June 6-7, Morgantown, WV State Society of Anesthesiologists

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room. 3rd Thursday, Noon-2 P. M. — June 19, "Evaluation of Various Treatment Modalities for Pneumococcal Infections," Elizabeth Funk, M. D.

July-Aug. (vacation)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday. 8-10 A.M. — June 11, "Review of Cardiac Arrhythmias," David Namay, M. D.

July 9, "Non-Invasive Techniques for Investigating Vascular Occlusive Diseases," Ali F. AbuRahma, M. D.

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — June 4, "Emergency Room Evaluation & Treatment of Alcohol-Related Illnesses & Injuries," Patricia Treharne, M. D.

July 2, "Initial Treatment of Stroke (CVA) and Subsequent Rehabilitation," A. L. Poffenbarger, M. D.

Aug. 6, "Dealing With Anxiety of COPD Patients," Beena Bhanot, M. D.

Madison, Boone Co. Health Dept. — Conference Room, 2nd Tuesday, 7-9 P. M. — June 10, "Oral Manifestations of Cancer," David H. Walker, D.D.S.

July-Aug. (vacation)

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — June-Aug. (vacation)

Summersville, Summersville Memorial Hospital, 6:30-8:30 P. M. — June 2, "Update Sexually-Transmitted Diseases," Patrick Robinson, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — June 18, "Treatment of Bacterial Pneumonias," David Elliott, Pharm. D.

July 16, "The Magic Stone-Busting Machine: ESWL," Thomas McCoy, M. D.

Aug. (vacation)

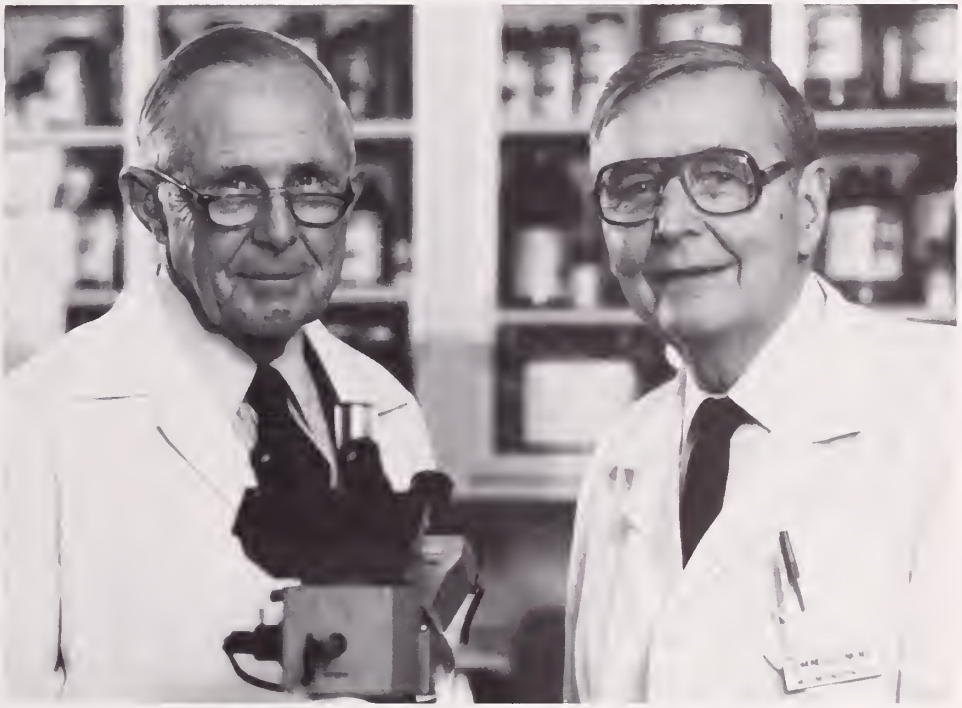
Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — June-Aug. (vacation)

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — June 5, "Early Recognition of Diabetes Retinopathy and Latest Modalities of Treatment."* Amos Wilkinson, M. D.

July 3, "Low Back Pain," William Sale, M. D.

Aug. (vacation)

*A special program in cooperation with West Virginia Department of Health; Department of Ophthalmology, WVU Medical Center, and WV Society of Ophthalmology.



TWO NOTED PHYSICIANS worked together at WVU School of Medicine when Theodore E. Woodward (left) spent a week with Edmund B. Flink recently. Doctor Woodward, from the University of Maryland, is an internationally-known expert on infectious diseases, especially treatment of typhoid fever. Doctor Flink was honored with the Edmund B. Flink Chair of Medicine, with a $1-million endowment income which is used to bring visiting professors of Doctor Woodward's caliber to WVU. During his visit he took part in teaching rounds and subspecialty conferences.

DELIBERATIONS — WVSMA Council spent more than two hours discussing the malpractice insurance issue alone during its Spring meeting April 13 in Charleston at Association headquarters. An over-all scene of Councilors wrestling with some tough decisions is shown in the top photo, with President David Z. Morgan, standing, rear, making a point. In the bottom photo are some of the Councilors and others attending. They are, from bottom left, clockwise, Drs. Harry Shannon, Parkersburg (partly shown), Derrick L. Latos, Wheeling; Jack Leckie, Huntington, Chairman of the Insurance Committee; Jasbir S. Makar, Weirton; Mel P. Simon, Point Pleasant; Robert W. Lowe, Huntington (partly shown); Constantino Y. Amores, Charleston (partly shown); Diane E. Shafer, Williamson; George A. Curry, Morgantown; William C. Covey, Jr., Beckley (background); Howard S. Maxwell, Petersburg (in place of Larry C. Rogers); Stephen L. Sebert, Fairlea (background), and Michael M. Stump, Elkins.

WESPAC Members Listed

Names of WESPAC members were presented as a part of the WESPAC report to WVSMA Council at its Spring Meeting April 13. The list is printed below and includes names of additional members received since the Council meeting through press time for *The Journal* in May. The total number of members at that time was 117 Sustaining members and 226 Regular members for a grand total of 343, an all-time record for the state political action committee.

Sustaining members are those donating $100 or more; Regular members, those giving $50.

The 117 Sustaining members included 107 doctors and 10 auxiliary members; of the 226 Regular members, 213 are doctors and 13 are auxilians.

It should be noted that five of the Sustaining members are not members of the WVSMA.

Sustaining Members

Kenneth J. Allen. Mohammad F. Anwar, David W. Avery, R. Belding,* David F. Bell, Jr., R. Paul Bennett, Michael W. Blatt, Larry R. Cain, William H. Carter, Eileen C. Catterson, Harry F. Cooper, William C. Covey, Jr., John D. Credico,* Glen Crotty, Jr., William N. Cunningham, Erlinda L. de La Pena, Richard A. DeVaul, Thomas Richard Douglass. Generoso D. Duremedes. J. E. Echols, William J. Echols, Mrs. Denise Marie Fisher, Lewis N. Fox, Roger L. Frome,* James A. Gardner, Anthony George, Joseph Ivan Golden, Henry P. Gosiene, Lewis W. Gravely, David B. Gray, Echols A. Hansbarger, Jr., Robert D. Hess, Anne C. D. Hooper, William Dale Hooper, Francis C. Huber, Jr., Raquel S. Israel, A. Ray Jacobson, Ismael O. Jamora, R. C. Jereza, Richard Johns, Michael A. Kelly. Sriramloo Kesari, James S. Kessel. Mrs. Nancy Kessel, Marion C. Korstanje, Jr., Muthusami Kuppusami, Carl S. Larson, Derrick L. Latos, Robert L. Leadbetter, Jack Leckie, Han S. Lee. Stephen T. J. Lee, Kwan Ho Lee, Charles A. Lefebure, Rudolph Lemperg, Michael J. Lewis, Patrick Lillard, Raymond L. Lilly, Jr., F. Vivan Lilly, Donn Ashley Livingstone, Malcolm B. Louden, Jr., Robert Wylie Lowe. Ignacio Luna, Jr.;

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(Continued on Page 203)

Receiving a round of applause are new officers of the West Virginia Chapter, American Academy of Family Physicians, elected during the Academy's 34th annual Scientific Assembly in April in Charleston. From left, are Drs. John E. Beane, Parkersburg, District IV Director; Jose I. Ricard, Huntington, Vice President; Joseph B. Reed, Buckhannon, Chairman of the Board; Thomas G. Wack, Jr., Wheeling, President Elect; John V. Merrifield, Dunbar, Treasurer; Larry C. Rogers, Petersburg, District III Director; Michael J. Lewis, Morgantown, District II Director; Anne Jean Cavender, Charleston, District VII Director, and Joseph A. Smith, Dunbar, AAFP Delegate.

John B. Markey, M. D.

Harry S. Weeks, Jr., M. D.

AMA House Meets June 15-19

The annual meeting of the American Medical Association's House of Delegates will be held June 15-19 in Chicago at the Marriott Hotel.

WVSMA's two Delegates to the AMA House are Drs. John B. Markey of Charleston and Harry S. Weeks, Jr., of Wheeling, with Drs. Joseph A. Smith of Dunbar and Stephen D. Ward of Wheeling as Alternate Delegates.

Dr. Frank J. Holroyd of Princeton, who served for 32 years as a West Virginia AMA Delegate, is Honorary AMA Delegate.

The AMA House is composed of representatives from state medical associations, national medical specialty societies, resident physicians, medical students, medical schools, hospital medical staff sections, medical corps of the U. S. military services, U. S. Public Health Services, and Veterans Administration.

Dr. Harrison L. Rogers, Jr., general surgeon from Atlanta, is AMA President. The President-Elect is Dr. John Coury, Jr., who — after being installed as President during the AMA annual meeting — will address the WVSMA's first session of the House of Delegates on Wednesday, August 13, during the Association's Annual Meeting August 12-17 in White Sulphur Springs at the Greenbrier. Doctor Coury, of Port Huron, Michigan, is a general and pediatric surgeon.

Doctor Markey will serve on the Credentials Committee during the AMA convention.

David J. Brailer, a native of Kingwood, is the student member of the AMA Board of Trustees. He completed four years at West Virginia University School of Medicine in 1985 but, instead of taking his degree and beginning a residency, entered a one-year special program at the University of Pennsylvania School of Medicine.

WVSMA President David Z. Morgan, M. D., other WVSMA officers, and Executive Director Merwyn G. Scholten also will attend the convention.

Magazine Honors Fine

David J. Fine, President of West Virginia University Hospitals, Inc., has been named one of the national leaders in today's health care industry by *Hospitals* magazine, the official publication of the American Hospital Association.

Fine, 35, was featured in *Hospitals'* 50th anniversary issue, released in May.

(Continued in next column)

Fine and 50 others are named by the magazine. He joined University Hospital in 1983, and was instrumental in planning construction and financing of the new $87 million Ruby Memorial Hospital, which will replace the current building. He also worked to form HealthNet, and serves as President of that health care joint venture.

Doctor's Widow's Estate

Bequest Goes To WVU Student Scholarship Fund

The West Virginia University School of Medicine's student scholarship fund has received a bequest of nearly $300,000 from the estate of Hazel Lynch Coffindaffer of Lost Creek, Harrison County.

Mrs. Coffindaffer, who died in 1981, was the widow of Dr. C. Clyde Coffindaffer, a general practitioner in Clarksburg.

The bequest in Mrs. Coffindaffer's will now amounts to more than $580,000 and will be divided equally between the WVU School of Medicine and the Medical College of Virginia, where her husband received his M.D. degree.

Formal presentation of the gift took place at a dinner May 8 at the Green Acres Supper Club in Clarksburg.

Harrison Auxiliary, AMA-ERF

Mrs. Coffindaffer made the bequest through the Auxiliary of the Harrison County Medical Society and the American Medical Association's Education and Research Foundation (AMA-ERF).

The Auxiliary was represented by its President, Maripat Wright, and AMA-ERF President Dr. Rufus K. Broadaway made the presentation. Three other Auxiliary members, Mary Harrison, Margaret Gilman and Denny Fischer, were instrumental in obtaining the gift.

WVU Dean Richard A. DeVaul, M. D., and Associate Dean W.

Kenneth Blaylock, M. D., of the Medical College of Virginia accepted the gifts.

Another speaker was David J. Brailer, WVU medical student from Kingwood who is a Dana Scholar at the University of Pennsylvania School of Medicine. Brailer is the medical student member of the Board of Trustees of the American Medical Association.

Dr. David Z. Morgan, WVSMA President and Associate Dean of the WVU School of Medicine, was master of ceremonies.

Doctor's Death in 1961

Mrs. Coffindaffer was born in Parkersburg and became a member of the Harrison County Auxiliary in 1952. She was elected to honorary lifetime membership in 1972. Doctor Coffindaffer died in 1961.

AMA-ERF was established to help qualified young people finance their medical education and training, and to assist research at the nation's medical schools. Funds can be designated for particular schools and are used for scholarships, student loans and medical research grants.

No Risks Seen In U.S. From Chernobyl Accident

Concluding that no health risks for the American people will be demonstrated, the American College of Radiology commented in early May on the probable effects of the Chernobyl reactor accident.

In one of two statements, in a question-and-answer format, based on information at that time, the College said:

- Pregnant women and their fetuses in the United States face no increased danger.
- There will be no detectable increase of cancer in the U.S. because of this event.
- Nursing mothers should have no concern about the safety of their milk.
- People living in the U.S. can expect no genetic damage from the accident.
- No special precautions need be taken concerning food.
- Patients need have no fears concerning diagnostic x-ray examinations.

Dr. Joe N. Jarrett of Oak Hill, left, receives the 1986 "Mister Doc" Award from Dr. D. Dean Patton, Princeton, incoming President of the West Virginia Chapter, American Academy of Family Physicians. The award is the highest honor bestowed by the Chapter on one of its members, and was presented during its April meeting in Charleston. (See also the May 10 issue of WESGRAM.)

Medical Meetings

June 7-14—Am. Assoc. of Orthopaedic Medicine, Portland, Ore.

June 8-12—World Congress on Pediatric & Adolescent Gynecology, Washington, DC.

June 9-10—Society of Vascular Surgery, New Orleans.

June 15-19—AMA Annual Meeting, Chicago.

June 18—WVSMA Loss Control Seminar, Charleston.

June 23-26—Am. Orthopaedic Assoc., Hot Springs, VA.

July 3-7—Am. College of International Physicians, Dallas.

July 6-11—International Symposium on Psoriasis, Stanford, CA.

July 30-Aug. 3—Assoc. of Philippine Practicing Physicians in Am., Norfolk, VA.

Aug. 7-10—International Doctors in Alcoholics Anonymous, San Diego.

Aug. 12-17—119th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

Sept. 12-18—Am. College of Radiology, Baltimore.

Sept. 15-17—Am. College of Nutrition, Washington, DC.

Sept. 15-18—Am. College of Emergency Physicians, Atlanta.

Sept. 20—WVSMA Loss Control Seminar, Parkersburg.

Sept. 22-26—Am. College of Chest Physicians, San Francisco.

Sept. 25-28—Am. Society of Internal Medicine, Seattle.

Sept. 29-Oct. 6—Am. Academy of Family Physicians, Washington, DC.

Oct. 5-8—Am. Neurological Assoc., Boston.

Oct. 18—WVSMA Loss Control Seminar, Beckley.

Oct. 19-24—Am. College of Surgeons, New Orleans.

Oct. 19-24—Am. Academy of Physical Medicine & Rehabilitation, Baltimore.

Nov. 8—WVSMA Loss Control Seminar, Huntington.

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West Virginia State Medical Association
The Greenbrier

AUGUST 12-17, 1986

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PROGRAM COMMITTEE: John W. Traubert, M. D., of Morgantown, Chairman; and Drs. Marshall J. Carper and Richard E. Kleinmann of Charleston, Jose I. Ricard of Huntington, John A. Rizzo of Fairmont, and William N. Walker, Jr., of Clarksburg.

REGISTRATION FEE is $25 for WVSMA members and $100 for non-members. Please make checks payable to "WEST VIRGINIA STATE MEDICAL ASSOCIATION."

ACCREDITATION: Information concerning CME accreditation of the Annual Meeting program will appear in the August issue of *The Journal.*

Use Greenbrier reservation form enclosed with the May 25 issue of WESGRAM

PLAN NOW TO ATTEND

Return to:
WVSMA
P. O. Box 4106
Charleston, WV 25364

Please register me for the 119th Annual Meeting of the WVSMA in White Sulphur Springs, WV, August 12-17, 1986. My $25 registration fee, made payable to the WVSMA, is enclosed.

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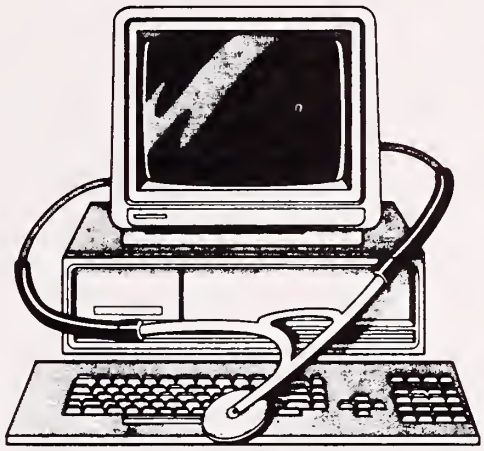

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WVU Medical Center News

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Ophthalmologists Tour On Flying Eye Hospital

A WVU ophthalmologist has completed his second week-long tour on Orbis, a flying eye hospital which travels throughout the world taking medical care to underserved areas and heightening awareness of eye diseases.

Iraq was the most recent country visited by John V. Linberg, M.D., Associate Professor of Ophthalmology and oculoplastic surgeon.

Doctor Linberg, who visited Tunisia on Orbis in 1984, said the project has been successfully introducing improved technology and health care programs to developing nations since its inception in 1982. Continuing growth of the operation has allowed the Orbis staff to follow through with and improve upon programs initiated during early trips, he said.

"All the trips on this particular itinerary were return trips, so the project directors had some idea of what to expect," he said. "They are much more focused on the needs of individual countries.

"They now send a representative several months ahead of time to work with the local physicians, which means they have been able to select better teaching cases, and the whole effort is better organized."

Doctor Linberg emphasized that the goal of the project is not to provide primary care for the nations visited, but rather to bring current or appropriate technology to the people who are providing the care.

Another goal is to stimulate awareness of the local government about eye problems.

Doctor Linberg said another change is that the plane now spends three weeks in each country instead of two. The first two weeks involve surgery and teaching on the hospital airplane and the third week is spent using equipment in the local hospitals.

The staff on Orbis includes two project ophthalmologists and one anesthesiologist who travel with the plane full time.

Another ophthalmologist at WVU, Matthew E. Farber, M. D., was recently on tour with Orbis in Egypt. Doctor Farber, a retinal specialist, lectured on laser surgery and vitrectomy. He has had a longstanding interest in the plane and helped load it when it was built.

Large Doses Of Vitamins: Do They Help In Cancer?

Are large doses of vitamins helpful in treating some forms of cancer? A number of studies suggest they may be, but many physicians are skeptical, and a new study at WVU may help resolve the issue.

Research on the value of megadoses of vitamins in treatment of cancer of the bladder is being undertaken by Drs. Donald L. Lamm and Joel Rach of the Department of Urology and a University of Texas nutritionist.

"Most of the evidence suggesting that high vitamin intake reduces cancer risk comes from population studies which further suggest that a healthy diet — not vitamin supplementation by itself — is effective," Doctor Lamm said.

"But some studies indicate that vitamin supplements may help. In bladder cancer, for example, vitamin A derivatives have significantly reduced recurrence of superficial tumors. Unfortunately, the vitamin A preparations used in these studies are not approved in the United States."

Doctor Lamm said vitamin B6, which is readily available, was found in one Veterans Administration cooperative study to be as effective as chemotherapy in patients with superficial bladder tumors.

Research Definite Plus In Best Infant Feeding

Feeding premature infants correctly is one of the most important factors in their survival and continued development. They require large calorie intakes, and human milk alone cannot always support their special needs.

Premature infants at WVU are benefiting from knowledge about feeding which may be years ahead of the field. According to C. Lawrence Kien, M. D., who holds the Compton Chair of Nutrition, this is an example of how research brings new techniques which may then become available for patient care.

"Research can enhance our knowledge of patient care in ways that go far beyond our own research. This knowledge is developed and shared by all the members of our group, and that includes Edward Liechty, Martha Mullett and David Myerberg." All are neonatologists at WVU.

The significance of the studies for premature infants at WVU is that they are being fed nutrients that will allow for the most rapid growth and development.

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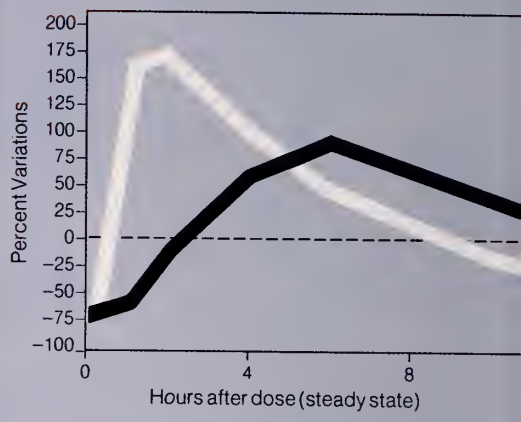

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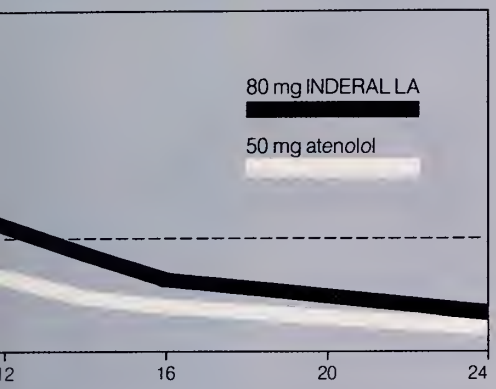

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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL® LA): Propranolol is contraindicated in. 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma; 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL® LA): CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following *abrupt* discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS. Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY. The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution, since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA. Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL® LA): GENERAL: Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs, such as reserpine should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY. Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY: Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

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NURSING MOTHERS. Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

Hydrochlorothiazide: GENERAL. Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY: Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS: Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL® LA): Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia; congestive heart failure, intensification of AV block; hypotension; paresthesia of hands; thrombocytopenic purpura; arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia; visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place; short-term memory loss; emotional lability; slightly clouded sensorium; and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation; mesenteric arterial thrombosis; ischemic colitis.

Allergic: Pharyngitis and agranulocytosis, erythematous rash; fever combined with aching and sore throat; laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic. Agranulocytosis; nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune. In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia, LE-like reactions, psoriasiform rashes; dry eyes; male impotence; and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:

Gastrointestinal: Anorexia; gastric irritation, nausea, vomiting, cramping, diarrhea, constipation; jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

Central Nervous System: Dizziness, vertigo; paresthesias; headache; xanthopsia.

Hematologic: Leukopenia, agranulocytosis; thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity; rash; urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever; respiratory distress, including pneumonitis; anaphylactic reactions.

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Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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REFERENCES

1. Data on file, Ayerst Laboratories. **2.** Ravid M, Lang R, Jutrin I: The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985;145:1321-1323. **3.** Sumiye L, Vivian AS, Frisof KB, et al: Potassium loss associated with hydrochlorothiazide versus chlorthalidone. *Clin Ther* 1981;4:308-320. **4.** Ram CVS, Garrett BN, Kaplan NM: Moderate sodium restriction and various diuretics in the treatment of hypertension. *Arch Intern Med* 1981;141:1015-1019.

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MU School Of Medicine News

Compiled from material furnished by the Office of University Relations, Marshall University.

Transplant Pioneer Starzl Presents 'Last Lecture'

Transplantation brought "electrifying" changes to the practice of medicine, transplant pioneer Thomas Starzl, M. D., said at MU, but it also did more: it triggered what he called a cascade of events across a wide spectrum of special interests, changing law, the government and perceptions of what is ethical in medicine.

Doctor Starzl, who performed the world's first successful liver and heart-liver transplants, presented the ceremonial Last Lecture to School of Medicine seniors May 8.

Some of the ethical and legal issues surrounding transplantation were readily resolved, he said, citing the redefinition of death as brain death. "There were those of us . . . 21 years ago who were terrified at what might happen to gravely injured patients as a result of allowing brain death to be accepted as a criterion of death," he said.

Fears Prove Unfounded

However, fears that these patients' care might be degraded proved unfounded, he said. Instead, the trend moved in the opposite direction: more resuscitative measures were performed once physicians had legal authority to remove life-support systems from brain-dead persons without being charged with murder.

This gave the gravely injured "a chance that thousands and tens of thousands of people in this country will have this year because of that change not only in the perception of what is right, but also in the law."

Problems remain, he added: problems of medical ethics and the allocation of scarce resources, problems of equal access to health care. Questions — in the case of living donors — of assuring freedom of choice. "In a society that has Judeo-Christian values, in which self-sacrifice is an admirable quality, free choice is very difficult to insure," Doctor Starzl said. As a result, he no longer uses organs from living donors.

Charges Students

Doctor Starzl charged students to hold inviolate the patient bond invoked by the Hippocratic oath, to not forsake patient care for "randomized trial-o-mania," to be not only the instruments of society, but its severest critics as well.

"I hope the lessons that were learned from the rapid progress in this field, this revolution . . . will help you control the next revolution that will come along," he concluded.

MU Has Part In Study Of Buffalo Creek Effects

To help determine how the Buffalo Creek dam collapse affected survivors physically and emotionally, the School of Medicine is collaborating on a study with the Traumatic Stress Study Center of the University of Cincinnati.

The study parallels several others done by the center: man-made disasters such as the Beverly Hills Supper Club fire and industrial accidents as well as natural disasters such as tornadoes.

"The present study in Buffalo Creek . . . is designed to continue to examine the long-term psychological consequences of disaster for the individual and the community: in particular, how people recover from such experiences and what is most helpful in the recovery process," said a center spokesman.

The study, funded by the National Institute of Mental Health, is comparing 260 disaster survivors with a control group from Kanawha and Boone counties, which were not affected by the flooding. Members of Marshall's Department of Family and Community Health are doing physical assessments of study participants.

Results of the study will be available in 1988.

MU Graduates Publish, Give Scientific Papers

School of Medicine graduate Kay Stone, M. D., an epidemiologist at the Centers for Disease Control, was the primary author of an April 4 article in the *Journal of the American Medical Association* concerning the prevention of the spread of sexually transmitted diseases.

Fellow 1982 graduate Rose A. Goodwin, M. D., and two MU surgical residents, Drs. Rod H. Peterson and Michael D. Sarap, have presented scientific papers selected for competitions.

Doctor Goodwin, now a resident at Ohio State University, was the primary author of one of five clinical pathology papers presented at the ASCP/CAP spring meeting.

Doctors Peterson and Sarap were two of six residents chosen to present papers at the spring meeting of the West Virginia Chapter of the American College of Surgeons. Doctor Peterson spoke on "Bacteremia on the Surgical Service." Doctor Sarap's topic was "Intestinal Obstruction in the Neonate."

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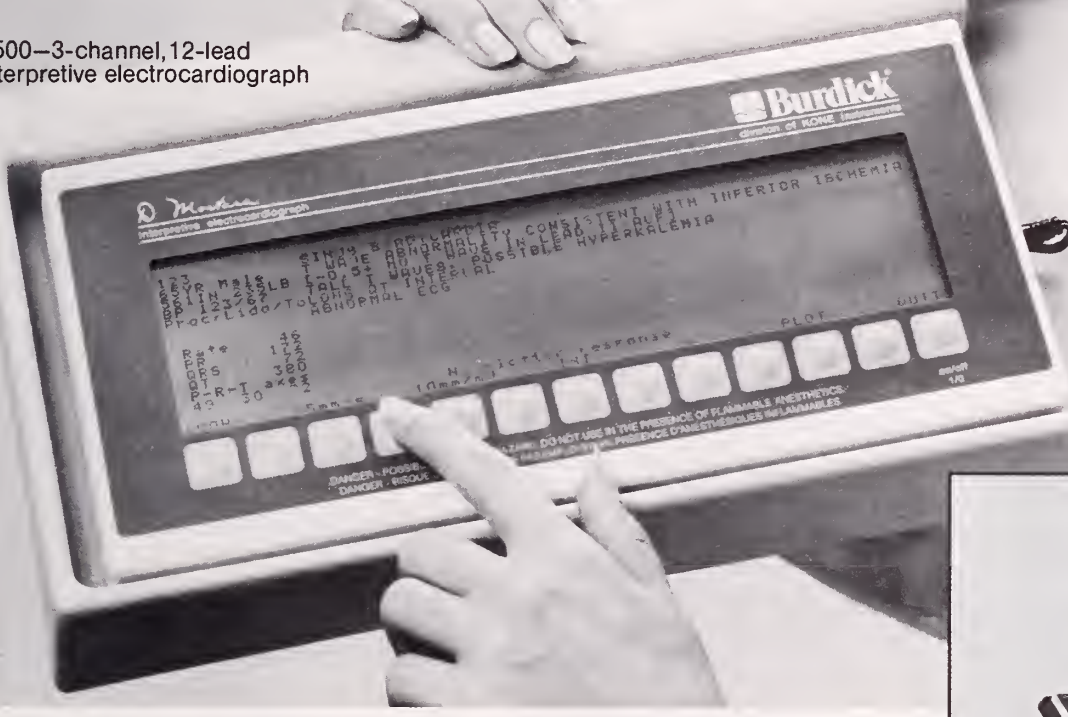

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Obituaries

HAROLD VAN HOOSE, M. D.

Dr. Harold Van Hoose of Fort Myers, Florida, formerly of Man, died April 16 in Fort Myers. He was 88.

Born in Lawrence County, Kentucky, Doctor Van Hoose went to Logan County in 1926 and practiced at Holden. In 1936, he moved to the Man area where he practiced until 1972.

A former Mayor of Man, he was Vice President of the West Virginia State Medical Association in 1948. He served three terms on the WVSMA Council (1959-63 and 1968-70).

Doctor Van Hoose was graduated from Stritch School of Medicine of Loyola University in Chicago, and interned at Mercy Hospital in Chicago, at Douglas County Hospital in Omaha, Nebraska, and at St. Elizabeth's Hospital in Lincoln, Nebraska.

He was a member of the American Academy of Family Physicians, and a retired member of the Logan County Medical Society, WVSMA, and American Medical Association.

Survivors include the wife, Henrietta Van Hoose, and two daughters, Helen Lazzelle of Morgantown and Mary Alice Sellers of North Fort Myers.

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County Societies

CABELL

Dr. Ronald R. Masden from the University of Louisville was the guest speaker for the meeting of the Cabell County Medical Society April 10 at Holiday Inn Gateway, East, in Barboursville.

Doctor Masden reviewed the development of coronary angioplasty since 1977 and related his experiences at the University of Louisville.

Dr. William Cunningham made an appeal for support of WESPAC.

Dr. Jack Leckie, Chairman of the State Medical Association's Insurance Committee, reported on a conference in Governor Moore's office following announcement of withdrawal by malpractice insurers. — Mabel M. Stevenson, M. D., Secretary.

MINGO

The Mingo County Medical Society met March 12 at Williamson Memorial Hospital.

Mr. Charles Albert, the guest speaker, spoke on the United Fund.

The Society approved support of the Little League baseball team, The Dodgers, with a donation of $250. — Diane Shafer, M. D., President.

The Society met again on April 9 at Williamson Memorial Hospital.

The guest speaker was attorney Fanny Haslebacher, Executive Director of the State Medical Association's preferred provider organization, Preferred Medical Care Network of West Virginia, who described the new PPO.

A malpractice insurance demonstration by doctors during the groundbreaking ceremonies for the new Williamson Memorial Hospital was discussed.

Plans were made to put a lawyer on retainer for the Society.

A special meeting of the Society was held April 12 on the steps of the Mingo County Courthouse in Williamson. For an hour, Society members, their families, patients and others conducted a demonstration concerning the malpractice insurance crisis. After speeches by State Delegate K. O. Damron (D-15th District); James Simpkins, then Democratic candidate for the State Senate from the Sixth District, and Dr. Nilkhanth Purohit, a march was led by Dr. Diane Shafer, President, and Doctor Purohit to the ground-breaking ceremony for the new Williamson Memorial Hospital at the old stadium.

Governor Moore met with us briefly and said he would do his best to help us in this very important matter. — Manolo Tampoya, M. D., Secretary-Treasurer.

MONONGALIA

Jack Dulaney, Ed.D., Superintendent of Monongalia County public schools, was the speaker for the meeting of the Monongalia County Medical Society April 1. His subject was "Drug and Alcohol Education in the Monongalia Public Schools."

WVSMA President David Z. Morgan, M. D., reported on the 1986 Legislature and tort reforms, emphasizing the importance of having physician representation in both legislative houses to cope with the enormous amount of health-related legislation. He also spoke on the statewide PPO and enrollment in the PPO by physicians. — Robert L. Murphy, Executive Secretary.

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Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

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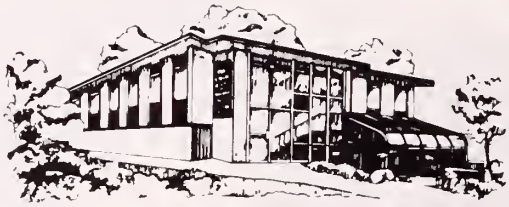

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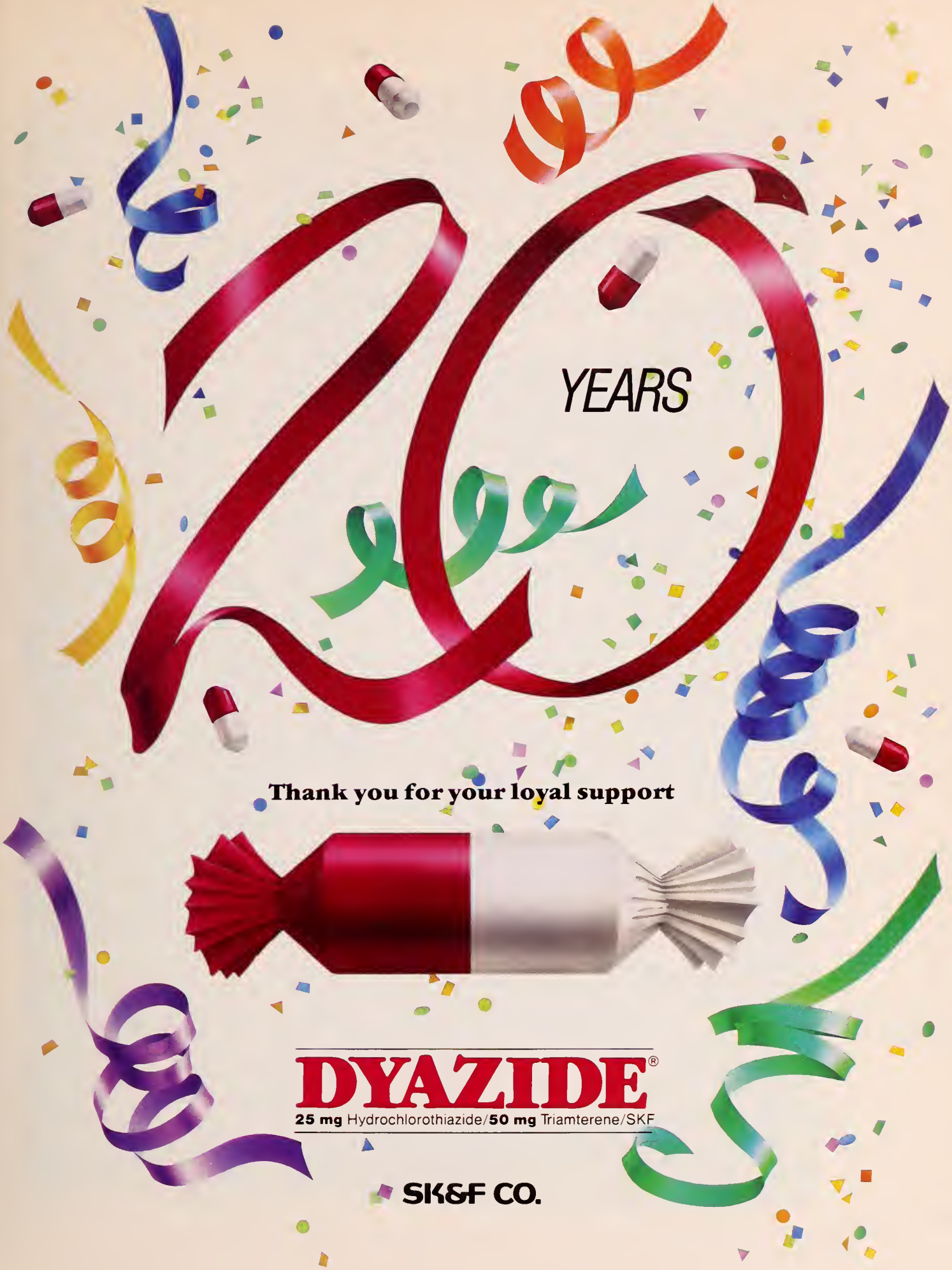
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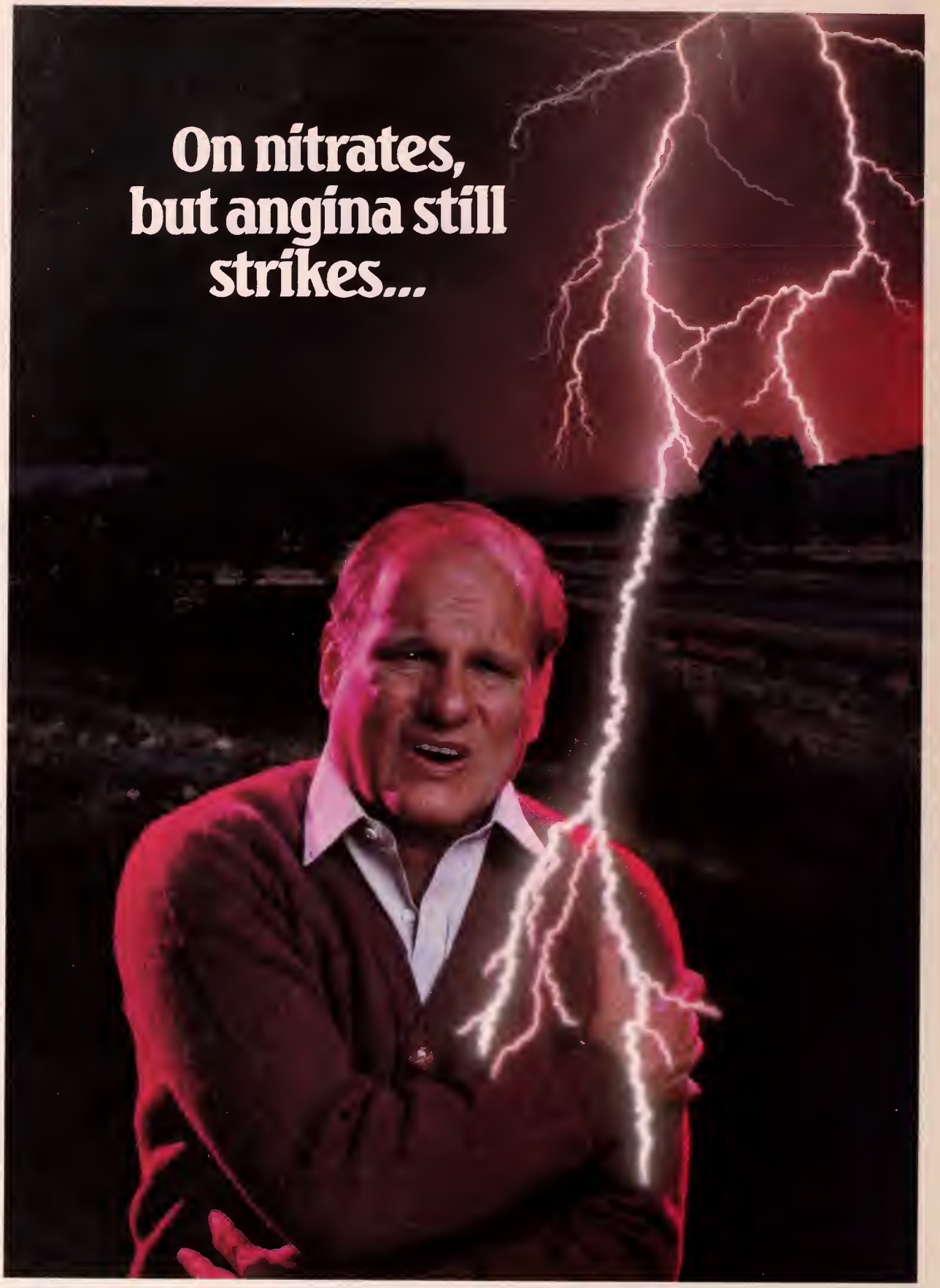
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Contraindications: Severe left ventricular dysfunction (see *Warnings*), hypotension (systolic pressure < 90 mm Hg) or cardiogenic shock, sick sinus syndrome (except in patients with a functioning artificial ventricular pacemaker), 2nd- or 3rd-degree AV block. **Warnings:** ISOPTIN should be avoided in patients with severe left ventricular dysfunction (e.g., ejection fraction < 30% or moderate to severe symptoms of cardiac failure) and in patients with any degree of ventricular dysfunction if they are receiving a beta blocker. (See *Precautions.*) Patients with milder ventricular dysfunction should, if possible, be controlled with optimum doses of digitalis and/or diuretics before ISOPTIN is used. (Note interactions with digoxin under *Precautions.*) ISOPTIN may occasionally produce hypotension (usually asymptomatic, orthostatic, mild and controlled by decrease in ISOPTIN dose). Elevations of transaminases with and without concomitant elevations in alkaline phosphatase and bilirubin have been reported. Such elevations may disappear even with continued treatment; however, four cases of hepatocellular injury by verapamil have been proven by rechallenge. Periodic monitoring of liver function is prudent during verapamil therapy. Patients with atrial flutter or fibrillation and an accessory AV pathway (e.g. W-P-W or L-G-L syndromes) may develop increased antegrade conduction across the aberrant pathway bypassing the AV node, producing a very rapid ventricular response after receiving ISOPTIN (or digitalis). Treatment is usually D.C.-cardioversion, which has been used safely and effectively after ISOPTIN. Because of verapamil's effect on AV conduction and the SA node, 1° AV block and transient bradycardia may occur. High grade block, however, has been infrequently observed. Marked 1° or progressive 2° or 3° AV block requires a dosage reduction or, rarely, discontinuation and institution of appropriate therapy depending upon the clinical situation. Patients with hypertrophic cardiomyopathy (IHSS) received verapamil in doses up to 720 mg/day. It must be appreciated that this group of patients had a serious disease with a high mortality rate and that most were refractory or intolerant to propranolol. A variety of serious adverse effects were seen in this group of patients including sinus bradycardia, 2° AV block, sinus arrest, pulmonary edema and/or severe hypotension. Most adverse effects responded well to dose reduction and only rarely was verapamil discontinued. **Precautions:** ISOPTIN should be given cautiously to patients with impaired hepatic function (in severe dysfunction use about 30% of the normal dose) or impaired renal function, and patients should be monitored for abnormal prolongation of the PR interval or other signs of excessive pharmacologic effects. Studies in a small number of patients suggest that concomitant use of ISOPTIN and beta blockers may be beneficial in patients with chronic stable angina. Combined therapy can also have adverse effects on cardiac function. Therefore, until further studies are completed, ISOPTIN should be used alone, if possible. If combined therapy is used, close surveillance of vital signs and clinical status should be carried out. Combined therapy with ISOPTIN and propranolol should usually be avoided in patients with AV conduction abnormalities and/or depressed left ventricular function. Chronic ISOPTIN treatment increases serum digoxin levels by 50% to 70% during the first week of therapy, which can result in digitalis toxicity. The digoxin dose should be reduced when ISOPTIN is given, and the patients should be carefully monitored to avoid over- or under-digitalization. ISOPTIN may have an additive effect on lowering blood pressure in patients receiving oral antihypertensive agents. Disopyramide should not be given within 48 hours before or 24 hours after ISOPTIN administration. Until further data are obtained, combined ISOPTIN and quinidine therapy in patients with hypertrophic cardiomyopathy should probably be avoided, since significant hypotension may result. Clinical experience with the concomitant use of ISOPTIN and short- and long-acting nitrates suggest beneficial interaction without undesirable drug interactions. Adequate animal carcinogenicity studies have not been performed. One study in rats did not suggest a tumorigenic potential, and verapamil was not mutagenic in the Ames test. *Pregnancy Category C*: There are no adequate and well-controlled studies in pregnant women. This drug should be used during pregnancy, labor and delivery only if clearly needed. It is not known whether verapamil is excreted in breast milk; therefore, nursing should be discontinued during ISOPTIN use. **Adverse Reactions:** Hypotension (2.9%), peripheral edema (1.7%), AV block: 3rd degree (0.8%), bradycardia: HR < 50/min (1.1%), CHF or pulmonary edema (0.9%), dizziness (3.6%), headache (1.8%), fatigue (1.1%), constipation (6.3%), nausea (1.6%), elevations of liver enzymes have been reported (See *Warnings.*) The following reactions, reported in less than 0.5%, occurred under circumstances where a causal relationship is not certain: ecchymosis, bruising, gynecomastia, psychotic symptoms, confusion, paresthesia, insomnia, somnolence, equilibrium disorder, blurred vision, syncope, muscle cramp, shakiness, claudication, hair loss, macules, spotty menstruation. **How Supplied:** ISOPTIN (verapamil HCl) is supplied in round, scored, film-coated tablets containing either 80 mg or 120 mg of verapamil hydrochloride and embossed with "ISOPTIN 80" or "ISOPTIN 120" on one side and with "KNOLL" on the reverse side. 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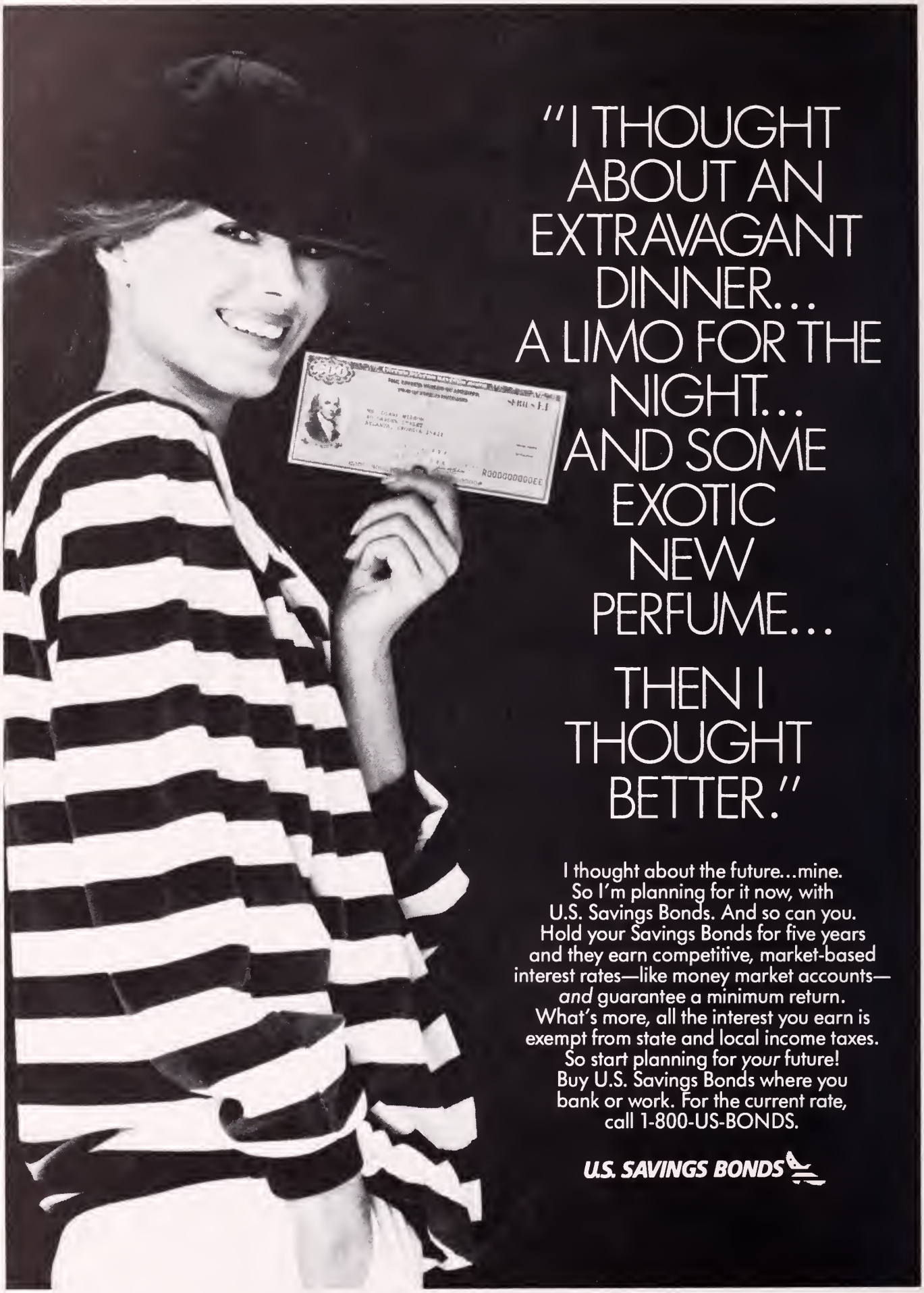

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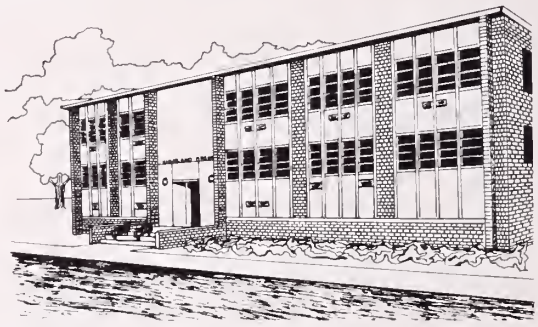

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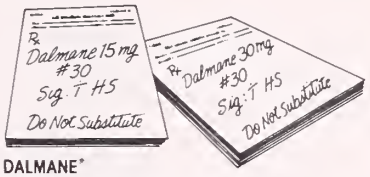

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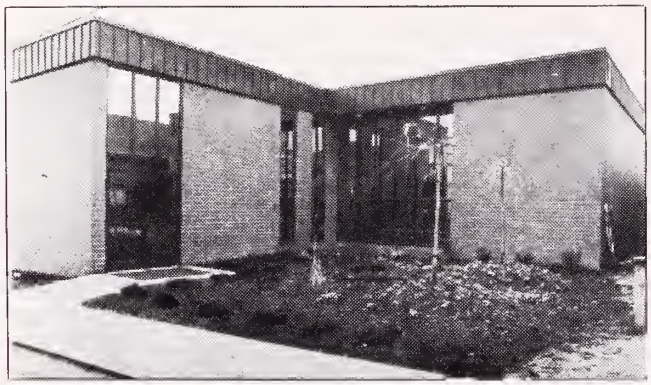

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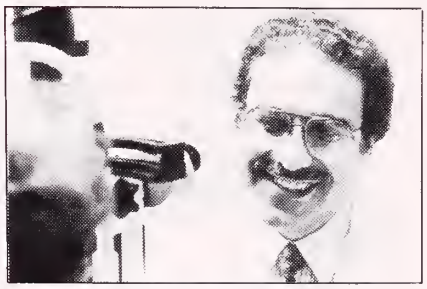

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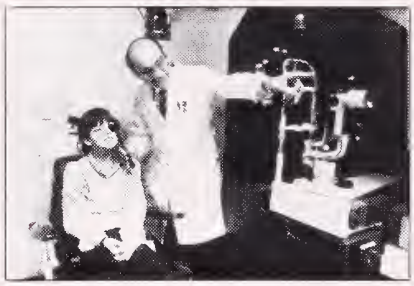

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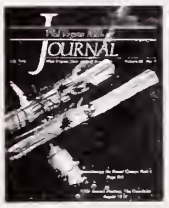

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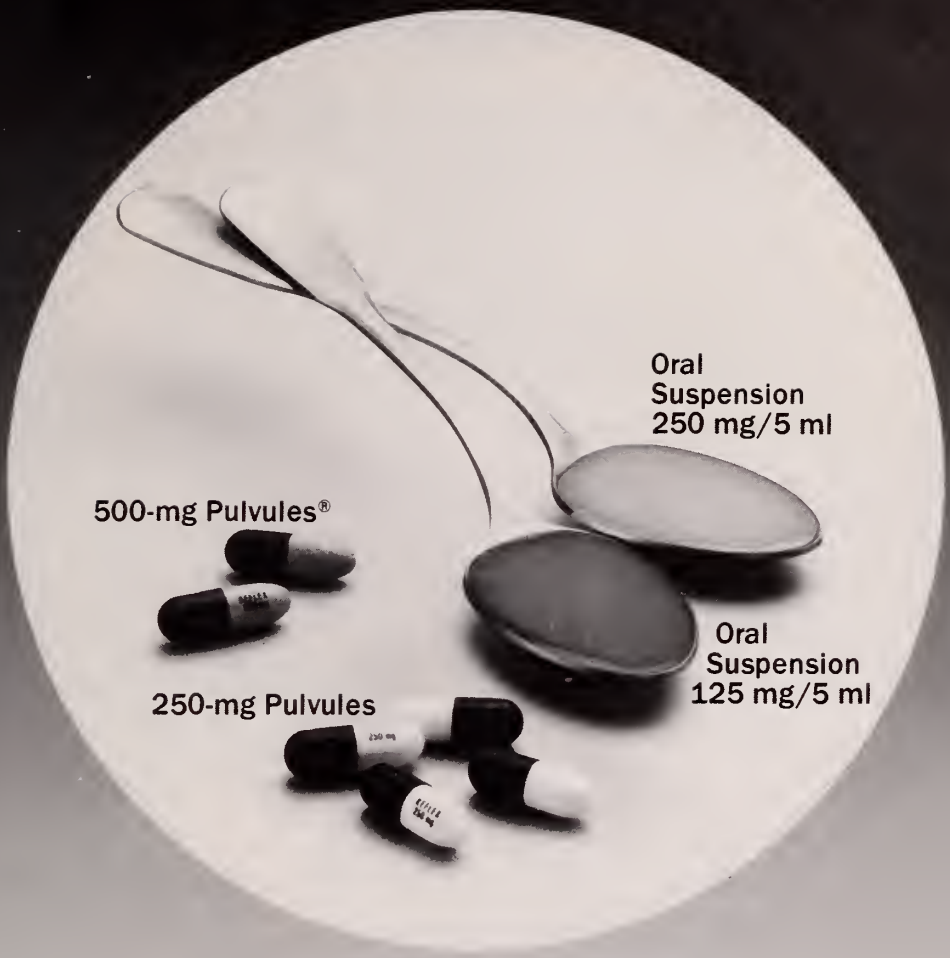

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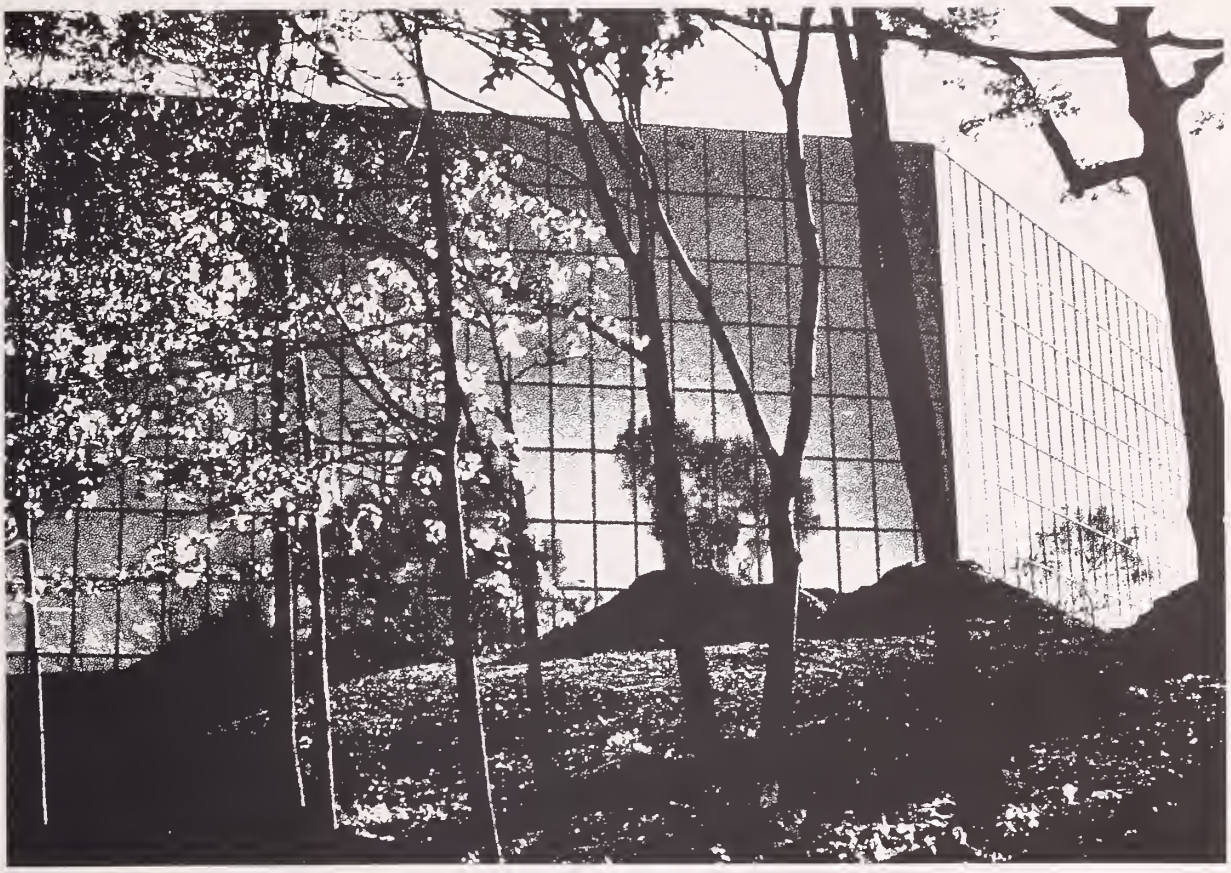

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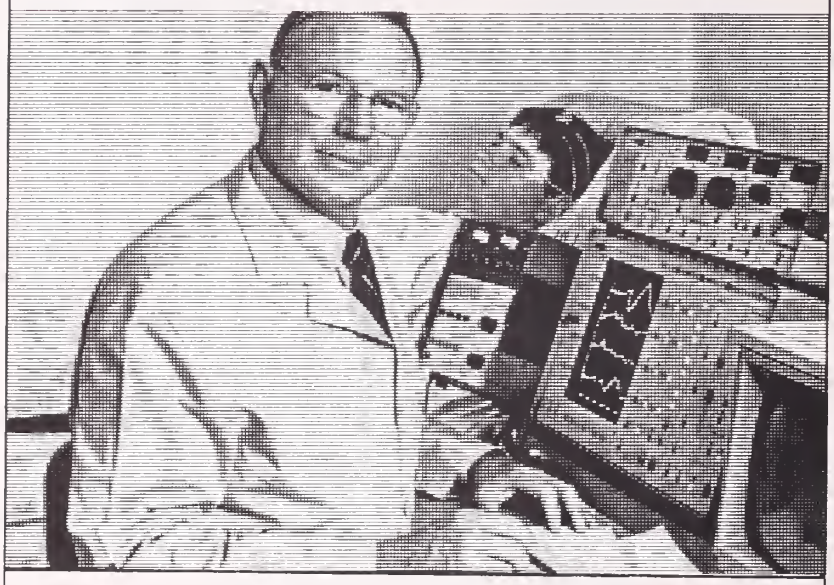

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Part 1

Chemotherapy For Breast Cancer*

GEORGE J. HILL, M. D.**
Professor of Surgery and Chief, Division of Surgical Oncology, University of Medicine and Dentistry of New Jersey - New Jersey Medical School, Newark

Editor's Note: This article is based on lectures presented by the author at the Sixth Annual Marshall University Surgical Symposium, Huntington, West Virginia, September 22, 1985. Part 2, Treatment of Metastatic Breast Cancer, will appear in the August issue of *The Journal*.

In recent years, breast cancer has rarely been treated with single agents since Cooper[5] reported the use of five drugs in combination. There is general agreement that estrogen receptor or progesterone receptor-positive tumors are more likely to respond to hormone manipulations than receptor-negative tumors.

There recently has been considerable interest in the cost of treatment.

Surgery is usually considered the primary modality of treatment. In adjuvant chemotherapy treatment, tamoxifen (Novaldex) is considerably less toxic and has been shown to help in advanced disease. With possible rare exceptions, chemotherapy has not been curative for advanced breast cancer. My recommended method of adjuvant treatment for premenopausal women is CMF for six months; for postmenopausal women, tamoxifen alone.

*Supported in part by National Cancer Institute grants 5R25CA19536 and 1R21CA-38212, a Research Award from The Veterans Administration, and support from the Huntington Clinical Foundation.

**Formerly from Marshall University School of Medicine, Huntington, West Virginia.

Introduction

Cancer of the breast is the leading form of cancer in women in the United States.[1,2] It has the highest incidence and is the most prevalent cancer in women, representing 26 per cent of all cancers in American women, excluding non-melamona skin cancers. Indeed, breast cancer constitutes 41.3 per cent of all cancers in women from 35 to 44 years of age. About one of every 11 women in the United States develops breast cancer. Because of the relatively long survival of patients with breast cancer, the prevalence in the population far exceeds the next most common cancers (lung and colorectal).

There recently has been considerable interest in the cost of treatment, and cost:benefit analysis is discussed increasingly in connection with many types of therapy.

Breast cancer has until recently also been the most common cause of death from cancer in women in the United States (37,300 in 1984). It is now slightly surpassed in mortality by lung cancer in women. Breast cancer is unusual in that late mortality from the disease is not uncommon, and the curve of survival of patients with this disease therefore does not become parallel to the general population until 8-10 years after diagnosis.[3] Breast cancer is the cause of death in about one third of women who develop the disease. Mortality rates are highest in those who are diagnosed at advanced stages.

Forty-one per cent of patients have positive regional lymph nodes, and nine per cent have distant metastases at the time of initial diagnosis.[1] Thus, more than 50,000 of the 115,000 new cases of breast cancer are at increased risk of death from the disease.

Breast cancer is significant to individual patients, to their families, and to the public at large because of the broad social and economic questions that are presented by this disease.

Response to Many Agents

Breast cancer responds to many cancer chemotherapeutic agents including cytotoxic drugs and hormones. Many authors have commented on the broad spectrum of responses to therapy, the high response rate (including so-called "complete responses"), and the long duration of responses in many patients.[4] Responses are seen with numerous alkylating agents such as ThioTEPA, cyclophosphamide and melphalan; with antimetabolites such as 5-fluorouracil and methotrexate; with antineoplastic antibiotics, most notably adriamycin; and with various other cytotoxic agents such as vincristine.

Response rates to individual drugs ranging from 20-50 per cent of patients have been reported in the past. In recent years, however, breast cancer has rarely been treated with single agents since Cooper[5] reported the use of five drugs in combination (cyclophosphamide, methotrexate, fluorouracil, vincristine and prednisone: CMFVP) in 60 patients with a 90-per cent response rate and acceptable toxicity. Cooper's response rate has not been achieved by others, and the role of vincristine in breast

cancer is now considered questionable, but combination chemotherapy is clearly more effective than single-agent therapy.

The most effective single cytotoxic agent appears to be adriamycin,[6] a drug which is, however, both toxic and expensive when given in the usual doses. Adriamycin induces responses in 38 per cent to 50 per cent of patients, with a median duration of response from five to eight months.

Breast cancer also responds to a variety of synthetic and natural hormones, hormone derivatives, and hormone antagonists. The list of useful hormonal agents includes androgens such as halotestin and testosterone, estrogens such as diethylstilbestrol (DES) and injectable estrogen esters, corticosteroids such as cortisone and prednisone, progestational agents such as megestrol, and the most commonly used hormonal agent, an antiestrogen, tamoxifen. Various drugs and hormones are sometimes used together in combinations that are not altogether logical but that empirically have been found to be tolerable and useful. Cooper's CMFVP combination has thus evolved into such combinations as CMF, CAF (substituting adriamycin for methotrexate), and CMF-T (with tamoxifen added).

Detailed accounts of the structure and theoretical mechanisms of action of these agents, and many others used for breast cancer, can be found in standard reference works.[7,8] Reports commonly include response rates, duration of responses, proportion of "partial" (more than 50 per cent but less than 100 per cent) and "complete" (100 per cent) responses, length of survival, toxicity, and — often — suggestions for further studies.[9] Assessment of the estrogen receptor (ER) and/or the progesterone receptor (PR) status of the patient's tumor is important in treatment planning. While there is disagreement regarding the implications of PR- and ER-negative tumors with respect to predicting responses to chemotherapy, there is general agreement that ER- or PR-positive tumors are more likely to respond to hormone manipulations than receptor-negative tumors. Patients with receptor-positive lesions can also expect a better-than-average response to endocrine ablative therapy and to the various hormones mentioned above. Whether it is because of the likelihood of response to therapy or to other biological factors, ER/PR-positive patients generally live longer than receptor-negative patients.[9] Because of the low toxicity and modest cost of tamoxifen, many patients with a poor prognosis have been placed on tamoxifen prophylaxis after mastectomy, even before demonstration of benefit from adjuvant tamoxifen therapy was seen in recent clinical trials.[10]

Cost:Benefit Analysis

There recently has been considerable interest in the cost of treatment, and cost:benefit analysis is discussed increasingly in connection with many types of therapy.[11] However, remarkably little definitive work has been published in the United States regarding cost:benefit analysis of systemic (i.e. chemotherapy and hormone) treatment of breast cancer. The loss of time from work caused by treatment and the direct cost of laboratory tests and drug administration vary from patient to patient, but could be estimated or calculated retrospectively. Suffice it to say that it must be a very large burden for many patients and their families. The cost of drugs can be quantitated easily since the protocols for drug administration have been standardized to a considerable degree. The agents themselves vary widely in cost, and the costs do not appear to be directly proportional to the effectiveness of the drugs. A recent annotated price list used by pharmacies in central New Jersey is shown in the Table.

Adjuvant Therapy for Breast Cancer

The term "adjuvant therapy" refers to the combination of treatments used to increase the likelihood of success from any single form of therapy. In the past, radical mastectomy was used as the main form of treatment. Postoperative radiation therapy was given in some institutions to patients with positive nodes or tumor that was close to the chest wall. Chemotherapy was used almost exclusively for advanced disease. Trials of prophylatic oophorectomy were generally regarded

TABLE

Example of Costs of Chemotherapeutic Agents Used in Breast Cancer*

	Cost	
	Weekly	*Monthly*
Cyclophosphamide (C)		
50 mg tablets; 100/bottle; $108.56		
Treatment with typical dose: 2, 50mg. tablets p.o. daily would cost	$15.20	$65.14
Methotrexate (M)		
2.5 mg tablets; 100/bottle; $84.78		
Treatment with 2, 2.5 mg tablets p.o. daily would cost	$11.87	$50.87
50 mg vial; $14.65		
Treatment with 50 mg. I.V. weekly would cost	$14.65	$58.60
5-Fluorouracil (F)		
500 mg ampoule; $1.31		
Treatment with 1000 mg. I.V. weekly would cost	$ 2.62	$10.48
Adriamycin (A)		
10 mg ampoule; $28.34		
20 mg ampoule; $56.68		
50 mg ampoule; $141.68		
Treatment with 20 mg. I.V. weekly would cost	$85.02	$340.08

Note: None of these drugs is usually considered to be "curative" for breast cancer. Combinations such as CMF or CAF are used to increase the response rate, the completeness of response, the duration of response, and – possibly – to secure cure, in adjuvant therapy. In usual doses, C is generally least toxic, then F, then M. A is most toxic and has the greatest risk of permanent complications.

*Based on retailers' recommended prices, South Orange, NJ, 10 September 1985.

as inconclusive. During the past 15 years, numerous changes in treatment have been instituted as the result of improvements in radiation therapy and randomized studies that showed equivalent outcome from various treatment methods. "Adjuvant therapy" formerly referred to treatments that were given after surgery, i.e., after radical mastectomy. What does the term "adjuvant therapy" mean now?

Treatment of breast cancer now may utilize preoperative ("neoadjuvant") or postoperative chemotherapy, preoperative or postoperative radiation therapy, interstitial radiation, lumpectomy, debulking of tumor, or radical mastectomy; and other methods that are too new to mention here. Which of these treatments are "adjuvant?" The word "adjuvant" is generally taken to mean "auxiliary," or "accessory," "ancillary," "appurtenant," "collateral," "contributory," "subservient" or "subsidiary" (Webster's *Thesaurus*, 1976). Thus the question is moot. Any of the present treatments could be considered to be adjuvant therapy, depending on your belief as to which is the major primary modality.

Many radiation therapists and some chemotherapists hold that their methods are the primary modalities, and that surgery is the adjuvant modality. There are thus some philosophical and jurisdictional problems that can confuse a discussion of adjuvant therapy. In the effort to be expeditious, and to avoid skirting the problem indefinitely, I am simply going to acknowledge the possibility of a different perspective while taking the point of view that surgery is at present the primary modality, and the other methods are the adjuvant methods.

The rationale for adjuvant therapy begins with the recognition of the poor outcome that is present in some patients, about one third to one half overall, or 50,000-60,000 each year, some of whom live for several years with persistent or recurrent breast cancer. Methods must be available to identify the groups at highest risk, particularly if the adjuvant treatment is expensive or toxic. Positive lymph nodes (Stage II) and/or large primary tumors (Stage III) are the main methods used, though nuclear morphology and differentiation are now gaining some degree of respectability.

Adjuvant treatment methods must have some likelihood of benefit in order to warrant serious consideration. Fortunately, such methods are abundant for breast cancer, in contrast to colon and lung cancer. The methods must have additive or synergistic effect, and have less than additive toxicity. The "cost" must be reasonable; i.e., medical toxicity and the out-of-pocket expenses of treatment plus the time lost from work or normal life. Obviously, the greater the potential for benefit, the greater cost that may be accepted. We now regard some evidence for benefit in controlled studies as being important though our fascination with the randomized clinical trial may be somewhat of a fetish. The evidence for benefit may initially be seen in improved disease-free interval. Later benefit may be seen in improved survival of treated patients compared with a control group of untreated patients who receive surgery alone.

. . . I am simply going to acknowledge the possibility of a different perspective while taking the point of view that surgery is at present the primary modality, and the other methods are the adjuvant methods.

The published graphs are usually based on statistical manipulations such as actuarial projections or more complex formulas that bear no direct relationship to reality. Presentations of new, unpublished data at scientific meetings frequently utilize theoretical or calculated projections, and curves that are smoothed out for easy viewing, that often never come to publication. The most important fact—the percentage of patients actually *cured*—is very elusive. In breast cancer, 10-15 years may be needed to develop a reasonable assessment of sustained remission since there have been many relapses after 5-10 years,[3] or longer, before adjuvant postoperative chemotherapy became popular. Adjuvant therapy additionally may delay the appearance of distant metastases even though cure has not been achieved. Of course, a profound increase in the disease-free interval would still be considered a major accomplishment if it was obtained at low cost and with minimum toxicity and few late side effects.

Methods Available

What are the adjuvant methods available today? The major categories are, in addition to surgery, which is usually considered the primary modality: radiation therapy, chemotherapy, hormone therapy, and various other, by and large unproven, methods. Radiation therapy apparently can cure breast cancer. It certainly can produce very long disease-free survival just as surgery does. Whereas mastectomy is always disfiguring, radiation therapy often results in a normal breast appearance after the initial reaction subsides. This is very important for many women, especially some young or perimenopausal women. The damage to DNA of the radiated cells and the lack of knowledge (Is additional breast cancer present?) of the non-resected tisues are two reasons to be concerned about the outcome in patients treated primarily with radiation therapy.

Hormone therapy has surged recently as an adjuvant modality for several reasons: The bloom is off of chemotherapy since the NCI's Consensus Conference in July, 1980, led to an enormous increase in the use of adjuvant chemotherapy but no clear increase in the cure rate for breast cancer, in national statistics. The beneficial effects of adjuvant therapy were reaffirmed at the NCI's second Consensus Conference on Breast Cancer in September, 1985.[12] However, patients describe the toxicity of therapy, and physicians encounter significant problems in treatment after relapse. On the other hand, tamoxifen (Nolvadex) — and more recently, megestrol (Megace) — are considerably less toxic and have been shown to help in advanced disease. Tamoxifen also recently has been shown to be beneficial as an adjuvant in Europe.[10]

The fear that these hormonal-type adjuvants might stimulate growth of breast cancer seems to be unwarranted. The tremendous recent public interest in "health," "prevention," "nutrition," and various naturopathic superstitions can be understood, in part, as being the result of the failure of the medical profession to recognize that the toxicity of our treatment has not been — for most adult cancers such as breast cancer — accompanied by cure. With possible rare exceptions,[13-15] chemotherapy has not been curative for advanced breast cancer[9,16,17,18] in spite of the excellent, prolonged remissions that sometimes occur. The only solid evidence available to suggest that chemotherapy would be curative in the adjuvant setting when it is not curative for advanced cancer is based on studies in tumors of rodents.[19] The purpose of adjuvant therapy at present is to prolong the disease-free interval and the length of life, and to continue the search for cure.

With possible rare exceptions, chemotherapy has not been curative for advanced breast cancer in spite of the excellent, prolonged remissions that sometimes occur.

Cost

The cost of adjuvant therapy is impressive. It obviously varies with the agents used, the intensity of treatment (with variable drug cost and toxicity), the tests performed to monitor the course and toxicity, the skill of the therapist, and the social situation (whether the patient can drive herself, whether she is working full time, and how far she lives from the place treatment is given). It is not difficult to understand why some patients refuse to accept adjuvant chemotherapy for breast cancer, and why the relatively non-toxic hormone antagonist tamoxifen is gaining popularity as an adjuvant.

Additional information that should be considered when making a recommendation for adjuvant therapy includes: ER and PR receptors (progesterone receptors probably being more important than estrogen receptors), the age and menopausal status, TNM stage,[20] histological cell type and degree of differentiation, other prognostic factors such as family history or multicentricity, and perhaps (particularly in years to come) the assays for chemosensitivity and/or radiation sensitivity.

Recommendations can now be given for postoperative adjuvant treatment for Stage II and Stage III breast cancer, which otherwise have a 60 per cent and 30 per cent survival, respectively, at 10 years.

The 1985 National Cancer Institute Consensus Conference stated:[12]

- For premenopausal women with positive nodes, regardless of hormone receptor status, treatment with established combination chemotherapy should become standard care.
- For premenopausal patients with negative nodes, adjuvant therapy is not generally recommended. For certain high-risk patients in this group, adjuvant chemotherapy should be considered.
- For postmenopausal women with positive nodes and positive hormone-receptor levels, tamoxifen is the treatment of choice.
- For postmenopausal women with positive nodes and negative hormone-receptor levels, chemotherapy may be considered but cannot be recommended as standard practice.
- For postmenopausal women with negative nodes, regardless of hormone receptor levels, there is no indication for routine adjuvant treatment. For certain high-risk patients in this group, adjuvant therapy may be considered.

My recommended method of adjuvant treatment for premenopausal women is CMF for six months. For postmenopausal women, tamoxifen alone is my recommended adjuvant therapy. Controlled clinical trials are still ethically and scientifically valid since there is at present no convincing evidence that cure rates for breast cancer are increased by adjuvant chemotherapy and/or hormone therapy. Adjuvant therapy trials should include a careful record of toxicity, quality of life, and cost of therapy (including expenses incurred in the course of the disease) for both treated and untreated patients.

(End of Part 1)

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Primary Care Cancer Screening In West Virginia

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A survey of the cancer screening practices of primary care physicians in West Virginia was conducted in 1985. The questionnaire concerned procedures used in the early diagnosis of cancer of the cervix, breast, and colon-rectum. A wide range of utilization rates for different screening tests and procedures was reported. While recommended protocols are widely accepted for some forms of screening, there is marked underutilization of mammography and sigmoidoscopy.

Cancer remains the second leading cause of death in the United States. West Virginia is no exception in this statistic, with overall mortality from all cancers estimated at 4,100 in 1985.[1] Ultimately, it should be possible to reduce cancer mortality through the modification or elimination of risk factors. Until these risk factors are clearly identified through further research in etiology, early detection and treatment will remain the primary means of achieving reduced morbidity and mortality. Improvement in the performance of routine cancer screening procedures by primary care physicians in West Virginia is therefore an important goal.

A questionnaire was designed to gather information concerning the timing, frequency, and procedures used in screening. These data will serve as a baseline for assessing the effectiveness of a planned physician-oriented educational intervention. The study was restricted to three tumor sites — cancer of the cervix, breast, and colon-rectum — which account for over one fifth of the state's cancer deaths.[1] These cancers were selected on the basis of frequency of occurrence, highly significant morbidity and mortality, improved outcome with early diagnosis, and the availability of generally acceptable screening procedures at the primary care level.

Methods

A 34-item questionnaire, similar to those of primary care survey instruments used elsewhere,[2,3] was mailed to in-state primary care physicians in February, 1985. Identified from state licensing records, our survey population included internists, obstetrician-gynecologists, family practitioners, and general practitioners. Postcard reminders were mailed to all potential participants after two weeks, and a random sample of 300 physicians received an additional telephone reminder.

The questionnaire was concerned primarily with screening procedures applied to asymptomatic individuals. In addition, data were gathered on acceptability of tests, physician effectiveness ratings, and referral patterns. Screening procedures for the three cancer types included the Pap smear, physician breast examination, mammography, breast self-examination, stool occult blood testing, digital rectal examination, and sigmoidoscopy.

Selected Results

Physicians Responding

Replies were received from 343 physicians, one third of the 1,051 eligible. As indicated in Table 1, nearly half of the respondents were family practitioners.

Cancer of the Cervix

According to the results obtained, the frequency of Pap testing was fairly consistent overall for women in all age groups over 20 (Table 2). Most physicians (93 per cent) reported performing Pap smears on asymptomatic women patients. It is noteworthy that seven per cent fail to do so in the face of good evidence as to the effectiveness of the procedure and almost universal acceptance.

The American Cancer Society (ACS) recommends that this procedure should be performed at least every three years,[4] after two negative examinations one year apart. In this study, physicians reported performing the pap smear *annually* on 72 per cent of their patients. (For frequency by patient age, see Table 2.) Only five per cent of physicians reported any form of recall system.

The vast majority of physicians (83 per cent) state that they vary the frequency of the Pap test according to the perceived level of risk. If the principal determinants of risk for cancer of the cervix are sexual habits,[5] including the age at onset of intercourse and the number of sexual partners, it must be assumed that most physicians take a detailed sexual history and are satisfied that they receive accurate answers.

Cancer of the Breast

Over 90 per cent of physicians stated that they routinely perform

TABLE 1
Distribution of Respondents by Specialty

Specialty	*Number*	*Percentage*
Family Practice	151	44
Internal Medicine	88	26
Obstetrics/gynecology	68	20
General Practice	18	5
No data, Other	18	5
Total	343	100

TABLE 2

Frequency of Pap Smear by Patient Age

Age	*Annual*	*Every 2-3 Years*	*More Than 3 Years*
20-29	69%	27%	4%
30-39	72%	27%	1%
40-49	83%	16%	1%
50-59	77%	22%	1%
60 or Over	62%	30%	8%

TABLE 3

Frequency of Breast Examination by Patient Age

Age	*Annual*	*Every 2-3 Years*	*More Than 3 Years*
20-29	77%	20%	3%
30-39	88%	11%	1%
40-49	93%	6%	1%
50-59	93%	6%	1%
60 or over	90%	8%	2%

breast examinations on their asymptomatic female patients. As reflected in Table 3, physicians reported performing annual breast examinations most frequently on women aged 40-59.

Although the ACS recommends physician breast examination for women under age 40 only every three years,[4] these patients reportedly were examined on an *annual* basis by as many as 81 per cent of physicians.

Breast self-examination (BSE) is taught routinely to patients by 72 per cent of the responding physicians. At least two per cent do not teach BSE at all; other physicians (26 per cent) modify their BSE teaching practices according to the patient's age or perceived risk status. The majority of physicians use pamphlets for instruction while only three per cent use lump-containing artificial breast models.

Mammography on asymptomatic women, according to our survey results, is overutilized in younger age groups and underutilized in older age groups, relative to ACS guidelines. The ACS recommends a baseline mammogram between ages 35 and 40, every one to two years at ages 40 through 49, and thereafter annually.[4] Among our respondents, two per cent of the physicians questioned stated that they perform annual mammograms on young women aged 20 to 29, while at least 12 to 18 per cent do not perform any mammograms on women at any age. If screening every two to three years is also considered to be acceptable in women over 40, the performance of the majority of physicians reasonably approximates that recommended by the ACS (Table 4).

Colo-rectal Cancer

Physicians were questioned regarding their use of stool occult blood testing, digital rectal examination, and sigmoidoscopy. The reported frequency of performance of the digital rectal examination is reflected in Table 5. The ACS recommends this procedure on an annual basis from age 40 onwards.[4] From the table it can be seen that, while most of our sample agrees with this regimen, many physicians perform the examination either less frequently or not at all.

The results concerning occult blood testing (recommended by ACS annually for those over 50 years of age)[4] were similar to those of the digital rectal examination, but occult blood testing was performed less frequently than the rectal examination on patients under 50.

Sigmoidoscopy (recommended by the ACS every three to five years after two negative examinations one year apart, for individuals over 50)[4] is performed much less frequently than the other two procedures. Approximately one third of our sample stated that they use this modality in accordance with the ACS protocol while half do not use sigmoidoscopy at all. The largest discrepancy between the guidelines and reported performance occurs with this screening procedure.

Conclusion

The majority of the physicians surveyed report screening behavior generally in accordance with ACS recommendations and similar to that reported in other studies.[1,2] However, the results of this small study should be interpreted with care since the low return rate for questionnaires suggests that reported screening behavior is not necessarily representative of the majority of primary care physicians in West Virginia.

The cancer screening practices reported here have been compared with the recommendations of the ACS.[4] While not universally accepted, the ACS guidelines are widely followed in the United States and do not differ greatly in their overall approach from those of the Canadian Task Force,[6] Breslow and Somers,[7] and Frame.[8]

There is a striking range in the levels of utilization of different cancer screening procedures. The Pap smear is very widely accepted; only a small

TABLE 4

Frequency of Mammography by Patient* Age

Age	*Annual*	*Every 2-3 Years*	*More Than 3 Years*	*None*
20-29	2%	3%	6%	89%
30-39	5%	10%	23%	62%
40-49	13%	41%	28%	18%
50-59	38%	34%	16%	12%
66 and Over	39%	31%	16%	14%

*Asymptomatic women.

TABLE 5

Frequency of Digital Rectal Examination by Patient Age

Age	*Annual*	*Every 2-3 Years*	*More Than 3 Years*	*Not At All*
20-29	31%	20%	18%	31%
30-39	37%	26%	19%	18%
40-49	72%	18%	6%	4%
50-59	82%	13%	3%	2%
60 and Over	85%	9%	3%	3%

minority of physicians do not report its use at all. Physician breast examination reportedly was used more frequently on younger women than recommended by the ACS. While breast self-examination is widely taught, mammography is used relatively infrequently as a screening test. Although digital rectal examination and occult blood testing have gained wide acceptance, sigmoidoscopic examinations for colo-rectal carcinoma are performed much less frequently than recommended.

Several factors may contribute to the underutilization of mammography and sigmoidoscopy. Primary care physicians may not be aware of the recent advances in the technical aspects of mammography in which radiation dose has been significantly reduced[9] and the quality of imaging greatly improved.[10] Serious efforts should be made by radiologists and those promoting cancer screening to inform primary care practitioners and the public adequately about the enormous strides made in mammographic techniques during the last 10 years. At the same time, the relatively high cost of the procedure is almost certainly limiting its utilization, and cost reduction would offset this problem. In addition, the fact that third-party payers readily accept responsibility for the payment of numerous treatment procedures but fail to include screening procedures such as mammography, remains as an indictment of the rationality of our health care system.

Patient discomfort is likely to be the most significant limiting factor concerning sigmoidoscopy. Although the flexible sigmoidoscopy is preferable from the patient's perspective,[11] the high purchase cost of the instrument for physicians and the cost of the procedure for patients remain significant hurdles. Primary care physicians unfamiliar with the instrument should strongly consider achieving competence in its use.

When initially introduced, the Pap smear was regarded with skepticism by many physicians, yet it has achieved almost universal acceptance by both physicians and patients. If the major factors contributing to this success can be identified and applied to mammography and sigmoidoscopy, utilization rates can be expected to approach recommended levels. Further studies are required to elucidate the degree to which different factors contribute to our lack of success in applying state-of-the-art screening procedures.

Acknowledgement

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In An 18-Year-Old Male

Mononeuropathy Multiplex Associated With Diabetes

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Mononeuropathy multiplex associated with diabetes mellitus has usually been noted in middle-aged patients with mild or yet undiscovered non-insulin-dependent diabetes mellitus.

An 18-year-old, insulin-dependent diabetic male in diabetic ketoacidosis had acute onset of left buttock and leg pain. Evaluation showed evidence for mononeuropathy multiplex. This disorder has now been shown in an age group where it was not previously noted.

Mononeuropathy multiplex affecting the femoral nerve or lumbar plexus is a disorder usually seen in older, non-insulin dependent diabetic patients. It often occurs suddenly with a slow recovery period marked by pain and weakness of the affected extremity.

Case Report

An 18-year-old male with a five-year history of insulin-dependent diabetes mellitus recently was evaluated for mononeuropathy multiplex. He had had previous episodes of diabetic ketoacidosis without neurological sequelae. Two days prior to his hospital admission for another episode of ketoacidosis, he suffered the acute onset of left hip and leg pain and weakness. One day prior to admission, the weakness progressed to the extent that he was unable to walk without assistance. He denied other joint pains, visual disturbances, skin lesions, paresthesias, known renal disease or hypertension, illicit drug use, weight loss, or other recent trauma.

His ketoacidosis resolved with intravenous fluids and dietary and insulin adjustments but he continued to have leg pain and weakness. Significant laboratory data showed a sedimentation rate of 104 mm/hr, a normal urinalysis, and a serum creatinine of

0.9 mg/dl. Orthopedic examination, including lumbosacral x-rays, revealed no obvious pathology. Neurological examination revealed a normal funduscopic examination, but decreased sensation in L4 distribution, left quadriceps weakness, absent left patellar reflex, and an inability to walk without assistance.

Electromyelograms performed seven days after initiation of symptoms revealed no evokable quadriceps muscle action potential and early signs of degeneration and loss of motor unit potentials in several left leg muscles — thought to represent an acute lumbosacral plexopathy. Follow-up electromyelograms 14 and 25 days after the onset of symptoms revealed more prominent denervation in the areas of the lumbosacral plexus.

He remained hospitalized for a period of 21 days, during which time physical therapy and both narcotic and nonnarcotic agents were used for pain control. He was walking normally by discharge. He has since been lost to followup.

Discussion

Mononeuropathy multiplex, first described in 1890,[1] is a disorder with a sudden onset producing temporary disability, with often a limited course and complete recovery. It predominates in those over age 50, with mild or yet undiscovered diabetes and no evidence of retinopathy or nephropathy. It has been reported in those with insulin-dependent diabetes mellitus as young as 21 years.[2] It is believed that our patient is the youngest person with documented mononeuropathy multiplex secondary to diabetes mellitus.

The syndrome is often asymmetric with disporportionate pelvifemoral muscular group involvement. The patient complains of thigh pain and weakness, possible hypesthesia of the affected muscle group, but often minimal sensory involvement. Rarely, the disorder may progress to involve the opposite extremity, but the patient usually recovers function of his muscles over a period of time. Differential diagnosis includes vasculitis, sarcoidosis, amyloidosis, hemorrhage, trauma, or tumor. Physical examination shows hyporeflexia on the affected side. Nonspecific laboratory testing shows an elevated sedimentation rate. Electromyelogram shows evidence of denervation of affected muscles and often concommitant generalized neuropathy.[3]

Various theories of etiology include local tissue hypoxia, patchy demyelination of peripheral nerves, biochemical changes of peripheral nerves, or primary neuronal degeneration of anterior horn cells.[4] One case report implicated a vascular basis. Multiple small infarcts, without evidence of an arteritis, were noted in peripheral nerves as was diffuse disease of small intraneural vessels.[5]

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A Second Opinion: FMGs

"The FMG is not a foreign creature anymore"

Dr. Herman Fischer of Bridgeport is to be commended for his interest in foreign medical graduates joining organized medicine in order to best serve the health needs of the American people ["In My Opinion: FMGs, AMA Should Work Together," *The Journal*, March, 1986]. Doctor Fischer presented a historical background of the influx of FMGs into the United States. However, he did not mention that in the 60s and 70s and late 80s active recruitment of FMGs took place in developing countries in order to provide the physician health manpower needs of community hospitals. Recruitment teams even furnished plane fares and pocket money, and promised the good life in the United States. Many of these institutions did not have formal training programs (not to say, full-time teachers), and FMGs had to contend with doing only H and Ps. To many of the FMGs, the United States was the promised land of milk and honey with justice and freedom for them and their children.

It is a known fact that 20-25 per cent of the United States' health manpower are FMGs, and a more realistic figure is 22 per cent, or one FMG in every four physicians. FMGs are everywhere. They are part of the source of the health care needs of people in the ghettos of urban cities, the rural areas of Appalachia, prison and mental institutions, V. A. hospitals, the Indian and Alaskan Health services, and in the U.S. armed forces. FMGs are in the service of the American people.

Taxation without representation: The AMA House of Delegates is 99-per cent composed of U.S. medical graduates. Only a few FMGs, by reason of residence in Guam and Florida, have gained seats in the House of Delegates. To my own amazement, I almost made it into the Ohio State Medical Association delegation with a tie vote but powerful pressures from "friends" made me withdraw. There are many USMGs and FMGs who choose not to belong to the AMA because of frustration in their lack of understanding the constantly changing and contradictory goals and policies of the AMA. Those of us (FMGs) who have become American citizens cherish our status because of freedom and justice as the American way of life regardless of color, creed, national origin, age, sex, culture and values.

Is there freedom in the practice of medicine in the United States today? Has the AMA failed the doctors in this country in this important mission? If the AMA is to be the choice voice of organized medicine, how come black physicians still belong to the National Medical Association? Shouldn't Doctor Fischer start with black USMGs first?

The AMA House of Delegates, in June, 1982, passed resolution 56, to wit:

AMA RESOLUTION 56:

> Resolved that the AMA recommend that state medical licensing boards require graduation from a program of medical education leading to the medical degree that is *accredited by the liaison committee on medical education as a prerequisite for unrestricted license to practice medicine in any state and that graduates of educational programs not accredited by the LCME be required to produce documentation of graduation from a school meeting equivalent standards and performance evaluation requirements* [*italics by author*].

This resolution is discriminatory and very divisive. It brought fear and havoc to a lot of practicing FMGs, to FMGs in research, and to FMGs

who are professors and even chairpersons of departments in medical schools. It actually restricted their freedom of movement from one state to another. This resolution was misunderstood and even misapplied by many residency program directors. The only LCME-accredited medical schools are those in the United States and Canada.

In a sudden, 100-degree turnabout in policy in June, 1983, the AMA House of Delegates, through the efforts of the Florida delegation, passed a corrective resolution 108, to wit:

AMA RESOLUTION 108:

Resolved that the AMA recommend to state medical licensing boards that those physicians who are foreign medical graduates *currently duly licensed by any licensing jurisdiction in the United States should not be denied endorsement of their licenses or denied admission to re-examination* when this is required by law solely because they are unable to provide documentation from a school meeting equivalent standards and performance evaluation requirements to those of programs accredited by the Liaison Committee on Medical Education and be it further resolved that it is recommended that licensing boards in reviewing applications for licensure endorsement take into account a physician's ethical standards and his or her having practiced medicine of an acceptable quality.

Even in 1986 there are a number of bills in Congress which, to my thinking, are not in the best interest of the United States. If passed, they are impossible to implement anyway. There is no world body which can determine which foreign medical school has a curriculum equivalent to that of Harvard or Yale. The very best foreign aid the United States can give the world is medical knowledge to all peoples.

Conclusion: The FMG is not a foreign creature anymore. He/she is an active member of the community—and often has joined the Girl Scouts, Boy Scouts, the Masons, the Knights of Columbus, and the various service clubs. The *children of FMGs* are Americans, and most of them have excelled in almost every field of human endeavor.

FMGs, like their USMG colleagues, are up to date in the latest trends in medicine. Many are experts in medical technology and are highly qualified, respected clinicians practicing both the science and the art at their best for the benefit of the poor and the needy.

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We welcome contributions to *In My Opinion*. Submissions should be addressed to Stephen D. Ward, M. D., Editor, *The West Virginia Medical Journal*, Box 4106, Charleston, West Virginia 25364.

AMA Forms Committee On Radiation Emergencies

In the aftermath of Chernobyl, the American Medical Association has formed a new committee to address the health problems associated with non-military radiation incidents, emergencies and accidents.

Among observations developed at an initial meeting: health and medical effects rather than engineering and technical problems are of primary concern to the public; management of radiation emergencies involves treatment of physical and emotional damage to human beings; and an almost complete absence of physician involvement in planning presently exists.

"Many physicians are knowledgeable about how to respond to radiation emergencies, and others have adequate training to help assess the health consequences of radiation incidents," said committee Secretary William R. Hendee, Ph.D., of the AMA. "The desired level of physician involvement would lead to a reasonable professional and public understanding of non-military radiation incidents and emergencies," he added.

A Continuing Medical Education Event!

119th ANNUAL MEETING
of the
West Virginia State Medical Association
The Greenbrier

AUGUST 12-17, 1986

CO-SPONSORS

West Virginia State Medical Association

West Virginia University School of Medicine

Marshall University School of Medicine

COMPLETE PROGRAM WILL APPEAR IN AUGUST ISSUE OF *THE JOURNAL*

PROGRAM COMMITTEE: John W. Traubert, M. D., of Morgantown, Chairman; and Drs. Marshall J. Carper and Richard E. Kleinmann of Charleston, Jose I. Ricard of Huntington, John A. Rizzo of Fairmont, and William N. Walker, Jr., of Clarksburg.

REGISTRATION FEE is $25 for WVSMA members and $100 for non-members. Please make checks payable to "WEST VIRGINIA STATE MEDICAL ASSOCIATION."

ACCREDITATION: The program has been approved for 17 CME credit hours in Category 1 of the Physician's Recognition Award of the American Medical Association.

PLAN NOW TO ATTEND

Return to:
WVSMA
P. O. Box 4106
Charleston, WV 25364

I am a member of the WVSMA. Please register me for its 119th Annual Meeting in White Sulphur Springs, WV, August 12-17, 1986. My $25 registration fee, made payable to the WVSMA, is enclosed.

Name (please print) _____ Specialty _____

Address _____ City _____

Projections

Based on the past as a prologue to what lies ahead, please permit me, in the waning weeks of the presidency, some thoughts about the near future.

We may be entering a brief period of stability of professional liability insurance affordability. The European reinsurers will keep the heat on American companies, resulting in increased impetus for civil justice reform and a rapid shift to claims made policies. Insurers will continue to fail to renew physicians identified as high risks. A state-managed risk pool such as the proposal by Governor Moore will receive much attention in the coming year. West Virginia could be a leader in an innovative approach to the whole area of liability/casualty insurance.

Additional tort reform measures will be won from the Legislature with great difficulty. Small businesses in West Virginia could greatly benefit from general tort reform legislation. An effective coalition with small business groups would certainly seem to be desirable. National legislation in this area of tort law will proceed much more slowly than many suggest.

Physicians who have been removed from all or a substantial portion of their practice will increase in number. These are physicians who have been sanctioned by a federal pay program or rejected by a PPO and HMO for lack of quality care, or denied liability insurance as a high risk by the insurer. We must evolve some way of evaluating the potential of these excluded doctors, retraining them to retake a place in the health care industry.

Finally, the crystal ball says that PPOs and HMOs will continue to flourish, providing, as they do, medical care at a capped amount with rigid controls of quality of care and appropriate use of acute care facilities.

Only one thing is absolutely certain —change in medicine will take place so rapidly over the next decade that it will be difficult at times to separate the significant from the inconsequential, or the good from the bad.

One thing will remain constant: we are professionals trained to take care of people who hurt. We must continue to do that skillfully and compassionately.

David Z. Morgan, M. D., *President*
West Virginia State
Medical Association

Membership Options

Membership in WVSMA is a privilege enjoyed by more than 2,400 physicians in West Virginia. The fact that this substantial number of medical practitioners continues to belong is both gratifying and humbling.

Gratifying because it means that the majority of physicians see value in belonging to organized medicine for whatever their diverse reasons may be. Humbling because it carries an awesome weight of responsibility for the officers, leaders and staff to continue their work for the benefit of the members.

According to the latest available demographic information on physicians in West Virginia, there are some 3,100 doctors within the confines of the state's borders. Of these, some 2,600 are in active practice accessible to patients needing care. The other 500 include retirees, administrative physicians and others who are not active in daily patient care.

Of the WVSMA members, some 2,000 are full dues-paying members and the remaining 400 include retired, honorary, and a small number of resident and student members. Thus, it is possible for WVSMA to claim that 77 per cent of the active practicing physicians in West Virginia are members of the organization. It would be easy to rest on our laurels.

Our concern, however, is that our WVSMA Constitution and Bylaws clearly state that to be a member of WVSMA a physician must belong to the county medical society. It is clear that unified membership on the county and state level is a requirement. Yet, we are aware that a significant number of our component county societies permit a physician to belong on the local level without requiring payment of state dues.

There may be numerous reasons why a physician chooses to belong only to the county organization—personal, financial, perceived benefits or lack thereof—but the fact remains that the component leadership is remiss if it does not enforce the constitutional requirement.

On the other hand, turnabout is fair play. A simple solution would be a WVSMA bylaws change which would permit a physician desiring to join the component society. That way, the physician who sees little value in belonging to the county society could belong on the state and/or national level. (The AMA already permits direct membership, and we have 200-300 physicians in the state who belong to the AMA on that basis while bypassing membership on the state level.)

There is developing nationally a major push for unified membership on all levels, local, state and national. Some seven or eight state medical associations have already gone this route and at least a half dozen more are actively considering going unified.

Obviously, there is much to be said for the benefits of unified membership in providing medicine with a strong voice on all levels. If physicians fail to speak for themselves you can bet that no one else is going to speak up for them. Organized medicine on each level is the best spokesman for the profession, and each level is important and needed.

It would seem imperative, however, that WVSMA give serious consideration to a provision which would allow for direct state membership if we are going to continue the present situation where components are allowing a physician to pay only local county dues while ignoring the Constitutional requirement for combined membership. WVSMA gets requests from physicians who wish to join but do not wish to belong to the local unit because meeting sites are inconvenient or because they perceive no personal value, etc. In each and every instance the doctor has been told that before he can be a member of WVSMA he must join the county society. Yet, the counties, in many instances, fail to reciprocate when the doctor approaches them locally about joining.

We need all the voices we can muster if we are to face the future problems confronting medicine. That means involving more physicians in all phases and levels of organized medicine.

Options are available. One is to maintain the status quo. Another is to permit direct state membership. A third is to push for total unification on the local, state and national levels.

We invite your thoughts, ideas and comments. Our WVSMA House of Delegates will need to address these issues in the near future. The House can only respond to your thoughts and wishes.

The Publication Committee is not responsible for the authenticity of opinion or statements made by authors or in communications submitted to this Journal for publication. The author shall be held entirely responsible. Editorials printed in The Journal do not necessarily reflect the official position of the West Virginia State Medical Association.

Bargain Basement Medicine

Who is it that can't remember spotting a good thing in the bargain basement of some department store? In some ways bargain basements are as American as apple pie. They are certainly a part of the American merchandising system.

Medical services are being merchandised today very much in the same way as shoes or underwear or overcoats are merchandised. With this in mind it should not be considered in any way remarkable that the medical merchants have their bargain basements too. These, of course, are the HMOs.

There is nothing wrong with shopping at Macy's or Gimbels' basement. Some people wouldn't enjoy shopping, others couldn't afford to shop, if there were no bargain basements. Some people are fascinated with the goods on display in Medicine's bargain basement and others are convinced they can't afford the things upstairs.

Artful merchandisers manage to appeal to the varying tastes, desires and pocket books of a multitude of shoppers. Gimbels does not just hang up the Penthouse sign in its basement and hope for the best. Some merchants of medical service, perhaps through lack of experience, are not quite as artful as their department store cousins. Some just hang up the Penthouse sign and some of their customers are only too happy to believe it.

That is fraudulent, of course, and it is wrong. There is nothing wrong with the services that an HMO provides just as there is nothing wrong with the goods in the bargain basement. HMOs provide needed and valuable services to a portion of the patient population but those who merchandise these services should not commit fraud in the process.

HMOs provide a system of allotting and controlling medical services. Because certain specialists, certain equipment, certain resources are put on display via the brochures does not guarantee their appropriate use or even their availability. Disappointment is a frequent phenomenon voiced by new HMO enrollees.

A recent Rand Corporation study comparing health outcomes between patients treated by HMOs and others by traditional fee-for-service plans reported in AM NEWS revealed some startling findings. One is that those in a low income category fared better in the fee-for-service plan than a comparable group in an HMO. One would have predicted the opposite. There was also the suggestion that it was not necessarily less expensive for any government program to require mandatory HMO coverage for its medically indigent population.

HMOs have a place in the medical care system but the specific niche they should finally occupy has yet to be firmly outlined.

Our Readers Speak

Encourage Your Spouse To Join Auxiliary

Your Auxiliary needs your spouses' participation! More than 150 spouses in West Virginia either have not joined or participated in our organization for the past several years. These years and those coming are important to the Medical Association and its Auxiliary.

The posters, billboards and signs say "Wild, Wonderful West Virginia" and "Almost Heaven, West Virginia." We could make it "Impressive West Virginia" with our combined powers to accomplish our dreams and, at times, our rights. If we are to be heard and understood, we must have a powerful chorus — not a few scattered voices. Every step forward is better than none at all, for by doing nothing we step backward. We are a family, supporting each other in one goal — "Better Health Care In West Virginia."

Funds for scholarships, loans and grants come from Auxilians who gave of their time and finances. What a tragedy if these efforts went by the wayside like so many other things which are taken for granted and then lost. My children grew up knowing what the Auxiliary meant to our family and community. They participated in preparing crafts and posters, tagging items for AMA-ERF, and shopping for groceries to fill food baskets for the needy. Do your children know the purpose of the AMA-ERF? You feel joy and quiet satisfaction when you help others. Writing a letter to your congressmen and senators when the call goes out to the Auxiliary gives you a feeling of "I have done something to help."

Please encourage your spouse to join either as a member or member-at-large for those who live in communities without a local county auxiliary.

Mrs. Denny (Herman) Fischer
Bridgeport, *Chairman*
Members at Large Committee
Auxiliary to West Virginia
State Medical Association

Headaches, Arthritis On Program

Headaches and arthritis will be the subjects of scientific papers presented during the WVSMA's 119th Annual Meeting.

"Headaches: A Daily Enigma" will be the topic for Panayotis Ignatiadis, M. D., during the first general scientific session Thursday morning, August 14. He is Clinical Assistant Professor of Neurological Surgery, Marshall University School of Medicine.

Paul D. Saville, M. D., will present the paper on "Clinical Clues in Arthritis" during the third, and final, Saturday morning session. Doctor Saville is Clinical Professor of Medicine, West Virginia University School of Medicine, Charleston Division.

The second general session will be Friday morning, with the convention scheduled August 12-17 in White Sulphur Springs at the Greenbrier.

119th
Annual Meeting
The Greenbrier
August 12-17

Educated in Egypt, Greece

Doctor Ignatiadis received his early education in Egypt, and his M. D. degree in 1969 from the National University of Athens, Greece.

A Diplomate of the American Board of Neurological Surgery and a Fellow of the Royal College of Surgeons, Edinburgh, he came to Huntington in 1980 as a resident in general surgery at MU School of Medicine. He previously had completed various surgical postgraduate programs and held posts in West Berlin; Neath, South Wales; Charlottesville, Virginia (University of Virginia); Plymouth, England, and Hampton, Virginia.

Doctor Ignatiadis has been an Associate with Surgical Neurology, Inc., in Huntington since 1981.

London Native

Doctor Saville, Charleston rheumatologist, is a native of London, England. He came to WVU in 1974 as Professor and Chairman of the Division of Rheumatology in the Department of Medicine after holding teaching and research assignments at Creighton University in Nebraska and the University of Nebraska. He has held his clinical appointment at WVU since 1975.

Paul D. Saville, M. D.

Doctor Saville, whose field of interest is bone metabolism and orthopedic medicine, is Associate Editor for *Clinical Orthopedics and Related Research*, and referee for *Annals of Internal Medicine, Endocrinology* and *Calcified Tissue Research*. He has been guest instructor (metabolic bone disease) for the American Academy or Orthopedic Surgeons.

He received his medical degree in 1949 from St. George's Hospital Medical School in London, completing his postgraduate work there, at other London hospitals, and at The New York Hospital. Doctor Saville also held teaching and hospital assignments at Cornell University and the Hospital for Special Surgery in New York City.

He is the author or co-author of 67 scientific articles.

(Continued on next page)

Convention Schedule

The convention schedule will begin with a 2 P. M. meeting of the Executive Committee on Tuesday, August 12, and the usual preconvention meeting of the Council at 9:30 A. M. Wednesday. The opening scientific session will be Thursday immediately following 9 A. M. opening ceremonies.

It was announced earlier that the AMA President, Dr. John Coury, Jr., will address the first session of the House of Delegates Wednesday afternoon, August 13. Doctor Coury, of Port Huron, Michigan, is a general and scientific surgeon.

General Scientific sessions will offer hour-for-hour Category 1 credit.

Dr. Charles E. Turner of Huntington will be inaugurated as President to succeed Dr. David Z. Morgan of Morgantown during the second and final House session Saturday afternoon.

Topics Previously Announced

Scientific speakers and topics announced previously are:

Thursday morning: "Approach to the Solitary Thyroid Nodule," Richard E. Kleinmann, M. D., Associate Professor of Medicine, WVU Charleston Division; and "Geriatric Hypertension," Frederick C. Whittier, M. D., Professor of Medicine and Chief, Section of Nephrology, WVU, Morgantown;

Friday Morning: "Polypharmacy and the Elderly," Thomas E. Finucane, M. D., Assistant Professor of Medicine, Division of Comprehensive Medicine, WVU, Morgantown; "The Judicious Use of Blood and Blood Products," Mabel M. Stevenson, M. D., Director, Tri-State Red Cross Blood Services, and Clinical Professor of Pathology, Marshall University School of Medicine; and "Non-Diabetic Endocrine Emergencies," Irma H. Ullrich, M. D., Professor of Medicine, Section of Endocrinology/Metabolism, WVU, Morgantown;

Saturday Morning: "Facts and Fads in Nutrition," C. Lawrence Kien, M. D., Ph.D., C. E. Compton Professor of Nutrition; Chief, Section of Clinical Nutrition, Departments of Medicine, Pediatrics and Biochemistry; and Co-Director, Nutrition Support Services, WVU, Morgantown; and "Strict Diabetic Control, Who?, How?, Why?," Michael J. Lewis, M. D., Associate Professor, Department of Family Practice, WVU, Morgantown.

An Annual Meeting registration fee of $25 for all WVSMA members has been established by Council to help offset convention expenses. A fee of $100 will be charged non-members and out-of-state physicians.

The Annual Meeting of the Auxiliary, with Jeanny (Mrs. M. V.) Kalaycioglu of Shinnston in charge as President, again will run concurrently with the WVSMA convention.

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 4106, Charleston 25364. We'll be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

The Physician and the Hopelessly Ill Patient: Legal, Medical and Ethical Guidelines (Society for the Right to Die). $5. 250 West 57th Street, New York, NY 10107. 1985.

Caring, by Annette Swackhamer, R.N., and Ralph W. Moss. $15.95. Doubleday and Company, Inc., 245 Park Avenue, New York, NY 10167. 1986.

Existence, Culture, and Psychotherapy, by Clinton R. Meek, Ph.D. $19.95. Philosophical Library, Inc., 200 West 57th Street, New York, NY 10019. 1986.

Cardiac Arrest: A True Account of Stolen Lives, by Sarah Spinks. $17.95. Doubleday and Company, Inc., 2145 Park Avenue, New York, NY 10167. 1986.

Members of the Program Committee are Dr. John W. Traubert, Morgantown, Chairman; Doctor Kleinmann; and Drs. Marshall J. Carper, Charleston; Jose I. Rizzo, Fairmont, and William N. Walker, Jr., Clarksburg.

Charleston Aero Medical Services Inaugurated

NASA Astronaut Jon McBride, born in Charleston and raised in Beckley, took the inaugural flight in HealthNet Aeromedical Services' Charleston-based helicopter last month. The shuttle pilot was guest of honor at 10 A.M. ceremonies at Memorial Division in Kanawha City on June 7.

With helicopters now located in both Morgantown and Charleston covering a 150-mile radius of their respective home bases, HealthNet Aeromedical Services brings needed critical care and aviation capabilities together to serve communities and hospitals in West Virginia and the surrounding area on a 24-hour-a-day basis.

A major part of the effort involves transporting patients in need of specialized medical treatment between hospitals. "We will also transport patients from the scene of a serious accident or disaster to hospitals when requested by qualified public safety and emergency services personnel," HealthNet officials said.

The program is one of the first developed under the auspices of HealthNet in collaboration with its member hospitals, Charleston Area Medical Center, Inc. (CAMC) and West Virginia University Hospitals, Inc., in Morgantown.

McBride, whose mother resides in Charleston, is a Navy captain and pilot. He has been awarded honorary degrees by both Salem College and WVU.

He piloted the eight-day shuttle mission in 1984 which deployed the Earth Radiation Budget Satellite and conducted several scientific observations before landing at Kennedy Space Center in Florida.

Special Session

Reaffirmation of tort reforms previously set as WVSMA legislative goals resulted from the special session of the Association's House of Delegates May 19 in Charleston.

The special session was requested by the Parkersburg Academy of Medicine, and followed the opening of the extraordinary session of the State Legislature May 15.

The morning and luncheon WVSMA House sessions at the Marriott included updates by President David Z. Morgan, M. D., and others on the status of pending tort reform possibilities in the State Legislature, and discussion by WVSMA delegates of the malpractice insurance crisis and contingency plans for health care delivery after May 31. Following lunch, delegates went as a group to the state Capitol Building where the Legislature was in session to talk with legislators. WVSMA doctors in the Senate gallery were recognized from the floor at the beginning of the Senate session, which then adjourned until late afternoon.

MORNING COFFEE — Enjoying coffee before the Special Session of the WVSMA House of Delegates May 19 in Charleston are, from left, Drs. Bill M. Atkinson (WVSMA Council member), Francis C. Huber, Jr., and Frank L. Schwartz, all of Parkersburg, and Michael A. Grant, Fairmont.

The WVSMA House adopted five resolutions presented by Parkersburg Academy which called for the tort reforms of elimination of joint and several liability, a cap of $250,000 on non-economic damages, payment in annual installments for judgments in excess of $500,000, evidence of compensation from a collateral source, and limits on contingency fees for attorneys. (See May 25 issue of WESGRAM for tort reforms resulting from action of the Legislature May 22.)

The WVSMA House session was attended by 61 delegates and officers, and nine others including WVSMA staff and legal counsel.

Delegates also discussed a possible associate membership category for out-of-state doctors and non-M. D. health providers as a means of joining Preferred Medical Care Network of West Virginia, the WVSMA-established PPO. The final decision will have to be made by the House during the Annual Meeting in August.

DELEGATES SPEAK — A number of delegates had their say during the special session of the WVSMA House of Delegates held in May in Charleston during the malpractice insurance crisis. Above are, from left, Drs. Robert J. Clubb of Charleston (Kanawha Medical Society) and Joseph B. Reed, Buckhannon (Central West Virginia Medical Society).

New WVSMA Members Listed In Journal

A new feature has been added to *The Journal.*

The names of new, first-time WVSMA members will be printed in *The Journal* each month beginning with this issue (Page 248).

We hope this regular column will be informative and helpful for our readers in welcoming new members across the state.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

July 17, Charleston, Antimicrobial Therapy in the Oncology Patient

July 18, Morgantown, Health & Safety Aspects in Motorcycling

July 26-27, Morgantown, Practice Management Seminar: Assessing the Impact of Changing Times

Aug. 1-2, Charleston, Advanced Trauma Life Support

*Sept. 6, Morgantown, Common Spine Problems

Sept. 10, Charleston, Home Health Seminar

Sept. 13, Charleston, Searching Medline: A Guide for the Health Professional

*Sept. 19-20, Morgantown, Ob-Gyn Teaching Days

Sept. 24, Charleston, Teleconference: "Who Lives, Who Dies, Who Decides?"

Oct. 1, Charleston, Faculty Research Day

*Oct. 10-11, Morgantown, Internal Medicine Update '86

Oct. 14, Charleston, The Role of Autologous Bone Marrow Transplantation for Solid Tumors

Oct. 18, Morgantown, 7th Annual Ophthalmology Conference

Oct. 18-19, Charleston, Advanced Cardiac Life Support Provider Course

*Oct. 23-24, Morgantown, 12th Hal Wanger Family Practice Conference

Oct. 24, Charleston, Emergency Care Seminar

*Oct. 25, Morgantown, Pediatric Octoberfest

*Nov. 1, Morgantown, Cardiology Update

Nov. 5, Charleston, Childhood Obesity

*Nov. 22, Morgantown, Magnetic Resonance Imaging

Dec. 11, Charleston, Newer Treatments for Lung Cancer

* in conjunction with WVU football games

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — July-Aug. (vacation)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A.M. — July 9, "Non-Invasive Techniques for Investigating Vascular Occlusive Diseases," Ali F. AbuRahma, M. D.

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. —July 2, "Initial Treatment of Stroke (CVA) and Subsequent Rehabilitation," A. L. Poffenbarger, M. D.

Aug. 6, "Dealing With Anxiety of COPD Patients," Beena Bhanot, M. D.

Madison, Boone Memorial Hospital, 2nd Tuesday, 7-9 P. M. — July-Aug. (vacation)

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — July-Aug. (vacation)

Summersville, Summersville Memorial Hospital, 1st Tuesday, 6:30-8:30 P. M. — July-Aug. (vacation)

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — July 16, "The Magic Stone-Busting Machine: ESWL," Thomas McCoy, M. D.

Aug. (vacation)

Sept. 17, "Reading Chest X-Rays," Bippin Avashia, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — July-Aug. (vacation)

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — July 3, "Low Back Pain," William Sale, M. D.

Aug. (vacation)

Motorcycling Doctors To Meet In Morgantown

The Annual Meeting of the Motorcycling Doctors Association and the Motorcycling Allied Health Professionals Association will be held at Sheraton Lakeview in Morgantown on Friday, July 18, 1986.

A scientific program has been planned for the weekend including 3.5 hours of Category 1 CME credit. The program, open to physicians and others interested in the health and safety aspects of motorcycling, will focus on current research in motorcycle safety, surgical problems associated with care of injured patients, and special problems of motorcyclists, both medical and surgical.

For more information and registration details, call the WVU Office of Continuing Medical Education at (304) 293-3937.

45 Marshall Graduates' Residencies Announced

Forty-eight per cent of Marshall University School of Medicine seniors have accepted residencies in West Virginia, according to Dr. Jack Baur, Associate Dean for Clinical Affairs.

"Our students did very well in obtaining residencies this year," Doctor Baur said. "Of the 45 who participated in the National Residency Matching Program, 29 got their first choice and five got their second choice. We're also very pleased that three of our students got residencies in the very competitive fields of orthopedics and anesthesiology."

The School of Medicine had 29 students (63 per cent) in the primary-care specialties of family practice, internal medicine, obstetrics/gynecology and pediatrics.

The seniors, by home town, and their residency program are:

Barboursville — Timothy A. Damron, MU affiliated hospitals, internal medicine; *Beckley* — Donna J. Slayton, MU affiliated hospitals, transitional; Teddy W. Solari, MU affiliated hospitals, pediatrics;

Charleston — David W. Albright, Medical College of Virginia, Richmond, psychiatry; William M. Comisky, MU affiliated hospitals, pediatrics; Kenneth F. McNeil, Charleston Area Medical Center (CAMC), internal medicine; Elizabeth L. Spangler, CAMC, internal medicine, and Sue E. Wegmann, MU affiliated hospitals, transitional; *Fairmont* — Patrick J. Esposito, Spartanburg (S.C.) General Hospital, family practice; *Fort Gay* — Marc A. Workman, United Hospital Center, Clarksburg, family practice; *Grafton* — Nancy L. Craig, West Virginia University, family medicine;

Huntington — Craige M. Brestel, MU affiliated hospitals, internal medicine; William R. Brooks, Midland (Mich.) Hospital, family practice; Elaine L. Flanders, Medical College of Virginia, Richmond, pathology; William H. Haney, Chandler Medical Center, University of Kentucky, Lexington, internal medicine/pediatrics; John A. Hoffman, Lynchburg (Va.) Family Practice Center, family practice; Edwin J. Humphrey IV, University of South Florida affiliated hospital, Tampa, pathology; Eric W. Janssen, Mount Carmel Medical Center, Columbus, orthopedics; Kelly S. Kearfott, Chandler Medical Center, University of Kentucky, Lexington, psychiatry;

Kitrina L. Kearfott, Cincinnati General Hospital, family practice; Kathleen M. O'Hanlon, MU affiliated hospitals, family practice; Stuart M. Roth, MU affiliated hospitals, transitional; Patricia Sebas Schindzielorz, MU affiliated hospitals, pediatrics; Mark A. Studeny, Texas Tech University affiliated hospitals, Lubbock, internal medicine; Larry W. Watson, Riverside Methodist Hospital, Columbus, orthopedics, and Mark E. Wippel, MU affiliated hospitals, pediatrics;

Logan — Kevin S. Smith, University of Louisville affiliated hospitals, anesthesiology; *Madison* — Scott E. Miller, CAMC, internal medicine; *Morgantown* — Mary Nan Spiker, Tripper General Hospital, Hawaii, psychiatry; *Moundsville* — David S. Parks, United Hospital Center, Clarksburg, family practice; *Shepherdstown* — David M. Josephs, Duluth (Minn.) Family Practice Residency;

Sistersville — Jackson L. Joseph Flanigan, MU affiliated hospitals, surgery; *South Charleston* — Kimberly F. Ewing, Ohio State University Hospitals, pediatrics, and Marian Jean Gorham, CAMC, internal medicine; *Vienna* — Stevan J. Milhoan, CAMC, family practice; *Wardensville* — Jerry M. Hahn, MU affiliated hospitals, transitional; *Wayne* — Elaine M. Young, Good Samaritan Hospital in Cincinnati for one year of internal medicine, followed by a dermatology residency at Cincinnati General Hospital;

Weirton — Joseph C. Capito, Western Pennsylvania Hospital, Pittsburgh, surgery; *Wellsburg* — Monica Leonor Richey Acuna, Jacksonville (Fla.) Educational Program, internal medicine; *West Hamlin* — Terrence W. Triplett, Moses H. Cone Memorial Hospital, Greensboro, N.C., family practice; *Wheeling* — Joanne M. Lebow, North Carolina Baptist Hospital, Chapel Hill, internal medicine; *Williamsburg* — Donald H. Trainor, Jr., Methodist Hospital, Indianapolis, internal medicine/pediatrics;

Yawkey — Susann L. Lovejoy, CAMC, psychiatry; *Ironton, Ohio* — David S. Ratliff, MU affiliated hospitals, surgery; *Proctorville, Ohio* — James E. Tomblin, Ohio State University Hospital, obstetrics/gynecology; *Louisa, Kentucky* — C. Anne Gallant Steele, Cleveland Clinic Hospital, psychiatry.

Loss Control Seminar On Convention Schedule

A two-part WVSMA Loss Control Seminar will be held Thursday and Friday, August 14-15, during the Association's 119th Annual Meeting at the Greenbrier. Hours for the seminar on both days will be from 2 to 5 P. M.

Physicians insured with CNA will receive a five-per cent discount on their malpractice premiums over a three-year period by attending the seminar. Those who already have attended a WVSMA Loss Control Seminar may come to the August 14-15 seminar, but the five-per cent discount does not apply more than once.

There is no fee for CNA insureds. Physicians not insured with CNA may attend for information and a $75 registration fee.

The program is approved for six hours of Category 1 credit. Attendees must be present for both days to receive credit.

Enrollment is limited to 50 physicians. To register, call Candy Sayre at (304) 925-0342.

Non-Smoking Policy

A non-smoking policy for American College of Cardiology (ACC) meetings and Heart House, the national headquarters facility of the College located in Bethesda, MD, has been established by the Board of Trustees.

The action was recommended by the College's Preventive Cardiovascular Disease Committee.

Medical Corporation Head Named

Robert D. Colligan

Robert D. Colligan has been appointed President and Chief Executive Officer of the West Virginia University Medical Corporation, the state's largest medical practice group.

Colligan, who will head the WVU Dental Corporation as well, comes to WVU from Houston, Texas, where he served as Administrator for the Department of Medicine at Baylor College of Medicine.

At Baylor he had administrative responsibility for professional billing, purchasing, personnel, financial management, acounting and public relations for a department of 700 employees, including more than 250 faculty members, and he managed two clinical laboratories and seven cost centers at The Methodist Hospital, a Baylor clinical facility.

Colligan received his education at Montgomery Community College and the University of Maryland and worked for 13 years in administration and grants and contract management at the National Institute of Health before going to Texas in 1972. For the past 10 years he has been a site visitor and consultant to NIH.

"We found Mr. Colligan's experience in, and dedication to, the health care field most impressive," Stanley Shane, M. D., said. "We are pleased he has joined us in our continuing efforts to assure quality health services to the citizens of West Virginia." Doctor Shane is Chairman of the Board of the WVU Medical Corporation.

Colligan is married to Mary E. Riser, Ph.D., a well-known biochemist at Baylor, and they have two children. As a somatic cell geneticist, Doctor Riser is involved in cancer research. She is a native of Parkersburg, a daughter of Manning and Virginia Riser.

Practice Management Seminar In Morgantown

A Practice Management Seminar will be held at Sheraton Lakeview Resort and Conference Center in Morgantown July 26-27. Sponsors are the West Virginia University School of Medicine Office of Continuing Medical Education in cooperation with the College of Business and Economics at WVU.

The seminar will discuss a variety of topics including the Impact of the New Tax Law, and Competition in Health Care. A review of the Professional Liability Issue in West Virginia and a discussion of the Physician's Financial Future also are scheduled.

Attendees will have the opportunity to enjoy the Sheraton Lakeview Summer Theatre production of "A Chorus Line" on Saturday evening after a faculty reception and dinner.

Faculty for the program include Charles Hooper, Ph.D., Associate Professor in the WVU College of Business and Economics and a nationally recognized management consultant; Mark A. Cox and Anthony Smith, Financial Planners from the investment firm of Kidder, Peabody; Fred Wright II, Insurance Commissioner for the State of West Virginia; and David Z. Morgan, M.D., Associate Dean of the WVU School of Medicine and WVSMA President.

The cost of the program is $300 including tuition, two nights' lodging, Saturday dinner, and theatre tickets.

For more information, call the WVU Office of CME at (304) 293-3937.

Medical Meetings

July 3-7—Am. College of International Physicians, Dallas.

July 6-11—International Symposium on Psoriasis, Stanford, CA.

July 30-Aug. 3—Assoc. of Philippine Practicing Physicians in Am., Norfolk, VA.

Aug. 7-10—International Doctors in Alcoholics Anonymous, San Diego.

Aug. 12-17—119th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

Aug. 14-15—WVSMA Loss Control Seminar, White Sulphur Springs.

Sept. 12-18—Am. College of Radiology, Baltimore.

Sept. 15-17—Am. College of Nutrition, Washington, DC.

Sept. 15-18—Am. College of Emergency Physicians, Atlanta.

Sept. 20—WVSMA Loss Control Seminar, Parkersburg.

Sept. 22-26—Am. College of Chest Physicians, San Francisco.

Sept. 25-28—Am. Society of Internal Medicine, Seattle.

Sept. 27-Oct. 2—Am. Academy of Family Physicians, Washington, DC.

Oct. 5-8—Am. Neurological Assoc., Boston.

Oct. 14-18—Medical Group Management Association, Loss Angeles.

Oct. 15-17—Am. College of Gastroenterology, Atlanta.

Oct. 18—WVSMA Loss Control Seminar, Beckley.

Oct. 19-24—Am. College of Surgeons, New Orleans.

Oct. 19-24—Am. Academy of Physical Medicine & Rehabilitation, Baltimore.

Nov. 2-7—Am. Society of Therapeutic Radiology & Oncology, Los Angeles.

Nov. 8—WVSMA Loss Control Seminar, Huntington.

Nov. 9-13—Am. Academy of Ophthalmology, New Orleans.

Nov. 12-16—Am. Medical Women's Assoc., St. Louis.

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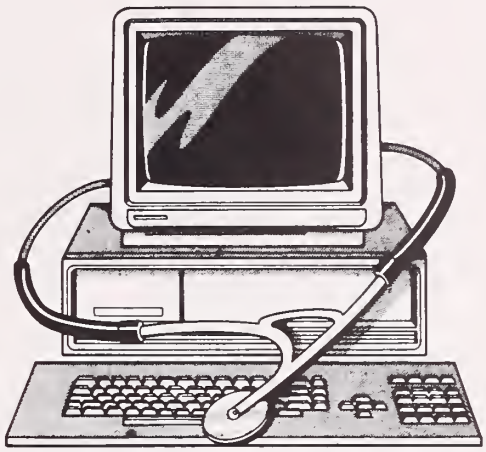

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WVU Medical Center News

West Virginia University

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Nugent Leaves Chairman Post, Stays On Staff

Although he has reached mandatory retirement age as Chairman of Neurosurgery, the good news — especially for referring doctors and for his patients — is that G. Robert Nugent, M. D., will continue there as Professor and "remain clinically and surgically active."

It's also good news for physicians who train at WVU to become neurosurgeons — attracted by the opportunity to prepare in a strong department under the guidance of nationally recognized experts such as Doctor Nugent.

"I don't plan to change anything; I feel young, active and able to carry my share of departmental duties," he said as he reviewed neurosurgery's development at WVU and in the state.

"But I've been Chairman for more than 15 years and, frankly, that's long enough. Actually, I think maybe a chairman should not be in that position more than 10 years."

Not that he hasn't liked the experience, but Doctor Nugent feels he has paid his dues in administrative responsibilities, paper work and committee commitments and that "it's time for someone else — a younger person with new ideas — to come in and move the department along."

The chosen one is Howard H. Kaufman, M. D., a Professor in the Department since 1983, who on July 1 became Chairman of Neurosurgery at WVU.

Neurosurgery was a division in the Department of Surgery when Doctor Nugent joined the faculty as Assistant Professor in 1961, the year after University Hospital opened. It became a full-fledged department in 1970 when he was named Chairman.

Doctor Nugent said that since he came to WVU there have been important changes in neurosurgery. "Probably the single most important has been the development of microneurosurgery . . ."

When Does Education Become Sales Promotion?

When does advertising by a drug manufacturer move from patient education to sales promotion? Is there anything wrong about advertising prescription drugs in the mass media?

These and related questions have concerned pharmaceutical manufacturers and professional organizations, and even the Food and Drug Administration, in the past few years. But the Dean of WVU's School of Pharmacy sees a growing consensus against direct consumer advertising. He thinks the problems it presents clearly outweigh any advantage to advertisers.

"It's a complex situation," says Dean Sidney A. Rosenbluth. "On the one hand you have this great need to educate patients about their ailments, therapy and drugs. But on the other hand, if you do something that primarily promotes the sale of a prescription drug, that often will not be in the patient's best interest."

For decades, pharmaceutical firms aimed their prescription drug advertising through professional publications mainly at physicians and dentists and, to a more limited extent, pharmacists.

"The question of more direct advertising aimed at the layman came up only a few years ago," Doctor Rosenbluth said. "It's linked to the issue of the consumers really needing to know more about their health problems and treatment. It's also obviously linked to competition within the pharmaceutical industry.

What part does pharmaceutical advertising play in this process?

Over-the-counter products for many years have been among the most highly-advertised of all consumer products: antacids, pain relievers, laxatives and others. Dean Rosenbluth considers this "quite appropriate" because hazards as well as benefits are adequately described in the labeling process.

But why advertise prescription drugs to consumers, since only a physician or dentist is adequately trained to decide whether a particular drug is appropriate for a particular patient?

Poison Center Staff Serves 'Round The Clock'

The West Virginia Poison Center, in its sixth year of operation, receives about 1,000 calls each month from state residents who are poison victims or who need information about poisons.

The staff of six specially-trained registered nurses is on call 24 hours a day, seven days a week and operates out of the WVU School of Pharmacy in the WVU Medical Center's Charleston Division.

According to Terri S. DeFazio, R. N., Assistant Director for Operations and Community Education, 75 per cent of the calls received at the Center involve children under the age of five.

About 40 per cent of the calls involve accidental ingestion of pharmaceuticals, both over-the-counter and prescription drugs.

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Obituaries

H. GEORGE BATEMAN, M. D.

Dr. H. George Bateman of Williamstown died May 16 at his home. He was 72.

A family physician, he practiced in Williamstown for 45 years before retiring in 1979.

Doctor Bateman was on the staff at Camden-Clark Memorial Hospital in Parkersburg and at Marietta (Ohio) Memorial Hospital where he was Chief of Staff.

Born in Covington, Kentucky, he received both his undergraduate and M. D. (1937) degrees from the University of Cincinnati. He interned at Cincinnati General Hospital and completed his residency at Camden-Clark Memorial Hospital.

Doctor Bateman, an Army veteran of World War II, was an honorary member of the Parkersburg Academy of Medicine, West Virginia State Medical Association and the American Medical Association.

Survivors include the wife, Mrs. Sue Anderson Bateman; three sons, George R. Bateman of Chicago, James Bateman of Williamstown and David Bateman of Lower Salem, Ohio; and two daughters, Barbara Crocket of Westport, Connecticut, and Rebecca Morgenstern of Marietta.

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County Societies

EASTERN PANHANDLE

Dr. David Z. Morgan, State Medical Association President, was the featured speaker for the meeting of the Eastern Panhandle Medical Society in Martinsburg April 2.

Doctor Morgan presented an overview of current tort reform legislation, and also answered questions about the statewide PPO.

The Society met again May 4. Dr. David Myerson of the University of Maryland spoke on post MI evaluation and stratification of cardiac risk. —James D. Helsley, M. D., Secretary.

McDOWELL

The McDowell County Medical Society met April 9 at the Bonanza Steakhouse in Welch.

Dr. Robert C. Touchon, Professor of Medicine and Chief of Cardiology at Marshall University School of Medicine, talked on Labetalo in the treatment of hypertension including hypertensive crisis.

The Society approved a donation of $50 to the AMA-ERF fund.

During the business session there was discussion on the malpractice insurance crisis, the State Medical Association's statewide PPO, WESPAC contributions, the May 13 primary election, and other matters.—Barbara A. Fenton, M. D., Secretary.

MINGO

The Mingo County Medical Society met May 7 at Williamson Memorial Hospital.

K. O. Damron, D-Mingo, who is a member of the House of Delegates and Vice Chairman of the House Judiciary Committee, was the guest speaker. He presented prepared remarks and then answered questions about the liability crisis.

Dr. Diane Shafer, President, displayed the full-page ad appearing in the Williamson Daily News May 1 announcing that the loss of malpractice insurance would result in no medical practice. We gave our patients a 30-day notice. — Manolo Tampoya, M. D., Secretary Treasurer.

MONONGALIA

Dr. Harry S. Weeks, Jr., of Wheeling, President and Medical Director of the West Virginia Medical Institute, Inc., was the principal speaker for the meeting of the Monongalia County Medical Society May 6.

Dr. David Z. Morgan, WVSMA President, delivered a brief report on tort reform in the state Legislature. — Robert L. Murphy, Executive Secretary.

TYGART'S VALLEY

The Tygart's Valley Medical Society met April 17 in Philippi at Broaddus Hospital.

Dr. Winfield S. Morgan, surgical pathologist from West Virginia University in Morgantown, spoke on "Fibrocystic Diseases of the Breast." The Society very much enjoyed Doctor Morgan's presentation.

Dr. Michael M. Stump, Elkins, Secretary, was approved by the Society as WVSMA Counselor for District Five.

The Society discussed plans for the WVSMA Annual Meeting in August.

The request from Senator Robert A. K. Holliday that Doctor Stump continue to serve as member-at-large on his advisory board for 1987 was noted. — Michael M. Stump, M. D., Secretary.

WESTERN

The Western Medical Society met May 13 at Roane General Hospital in Spencer.

The scientific session was presented by Dr. Stephen Weitzman of New York City, who gave a comprehensive description of infectious diseases and the use of antibiotics.—Ali H. Morad, M. D., Secretary.

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New Members

The following physicians were welcomed in May as new members of the West Virginia State Medical Association:

Cabell:

Dennis M. Burton, M. D., AMA Radiology Inc., P. O. Box 910, Huntington 25701, radiology

Gabriel Hosey, M. D., Suite 301, 2828 1st Avenue, Huntington 25702, anesthesiology

Linda Savory, M. D., 1801 6th Avenue, Huntington 25701, family practice

Logan:

Livia Cabauaton, M. D., Box 249, Logan 25601, family practice

Mercer:

Craig Brown, M. D., 132 Jo Ho Estates, Princeton 24740, family practice

Stanley S. Hamaker, M. D., 112 Wagner Avenue, Princeton 24740, family practice

Monongalia:

Authur Kim Ritchey, M. D., Department of Pediatrics, WVU School of Medicine, Morgantown 26506, pediatrics

Raleigh:

Syed Rasheed, M. D., 20 Mallard Court, Beckley 25801, internal medicine and endocrinology

Zarina Rasheed, M. D., 68 Timberridge Drive, Beckley 25801, pathology/clinical pathology

South Branch:

Bruce W. Leslie, M. D., Grant Memorial Hospital, Petersburg 26847, internal medicine

Colin Ramirly, M. D., Grant Memorial Hospital, Petersburg 26847, pediatrics

Danine A. Rydland, M. D., P. O. Box 758, Petersburg 26847, obstetrics-gynecology

Henry G. Taylor, M. D., P. O. Box 322, Franklin 26807, internal medicine

Residents

Kyran Dowling, M. D., 437 B Inglewood Boulevard, Morgantown 26505

Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8½ by 11 in.) white paper. Wide margins at least 1¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

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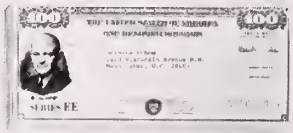

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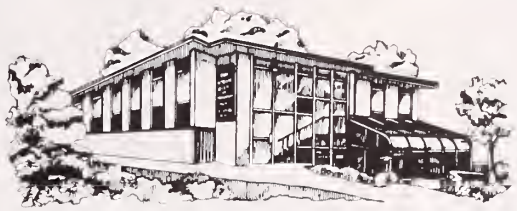

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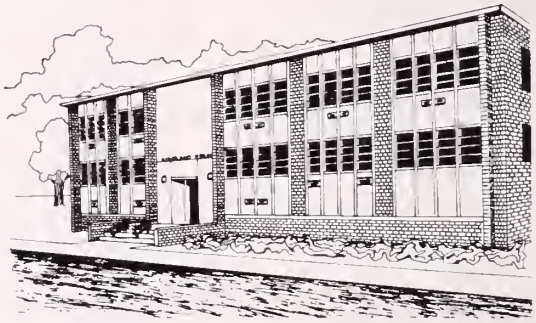

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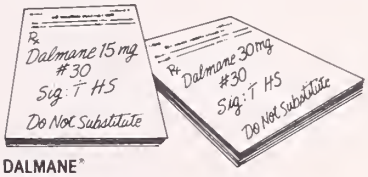

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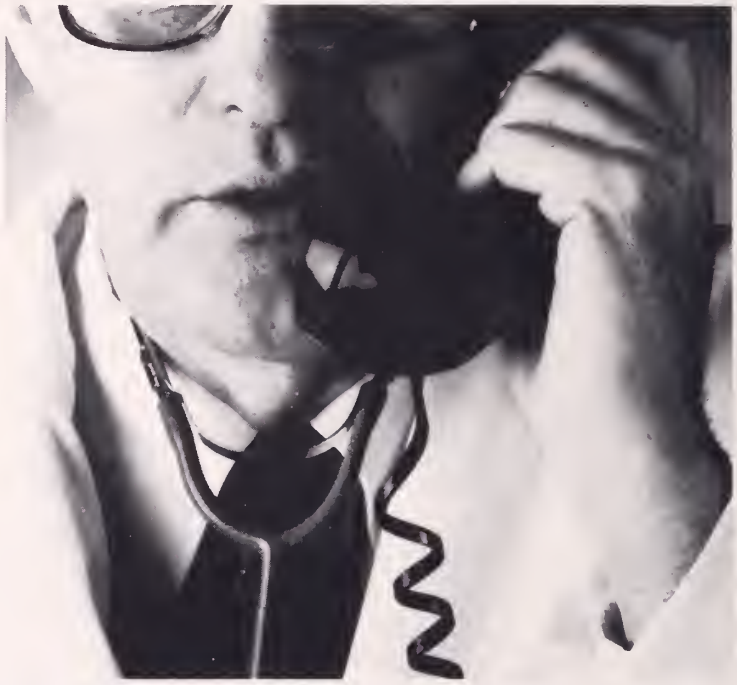

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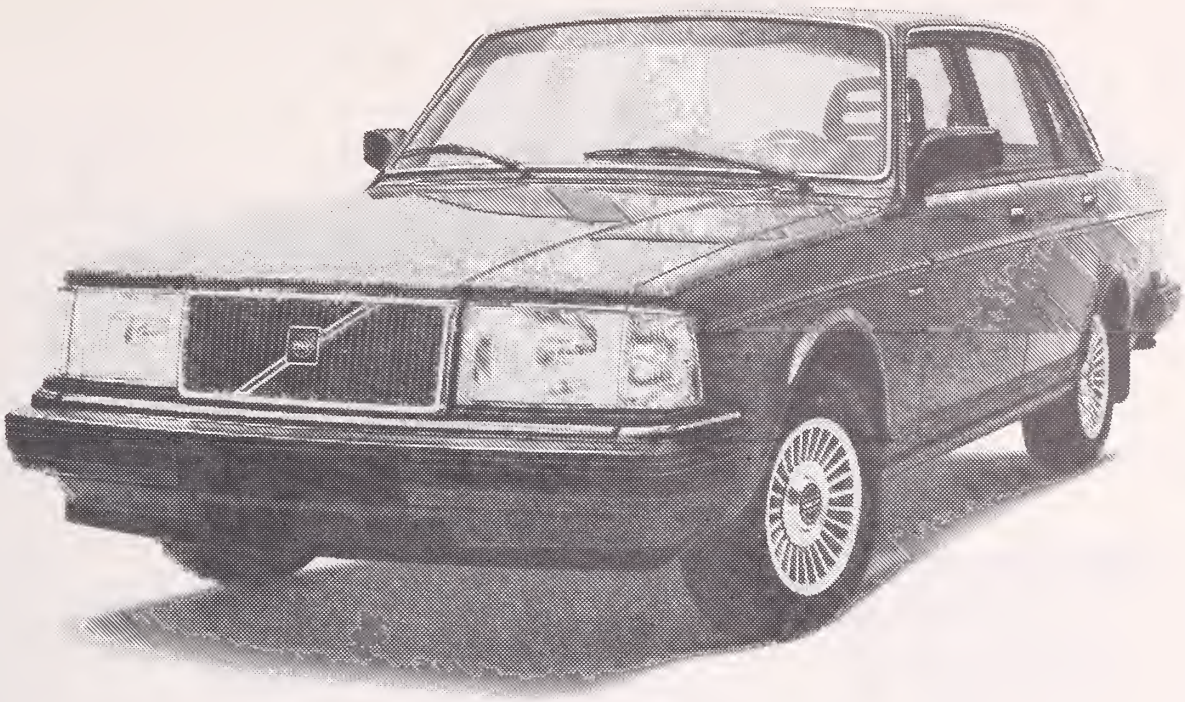

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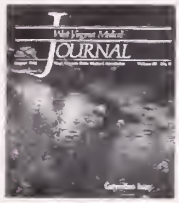

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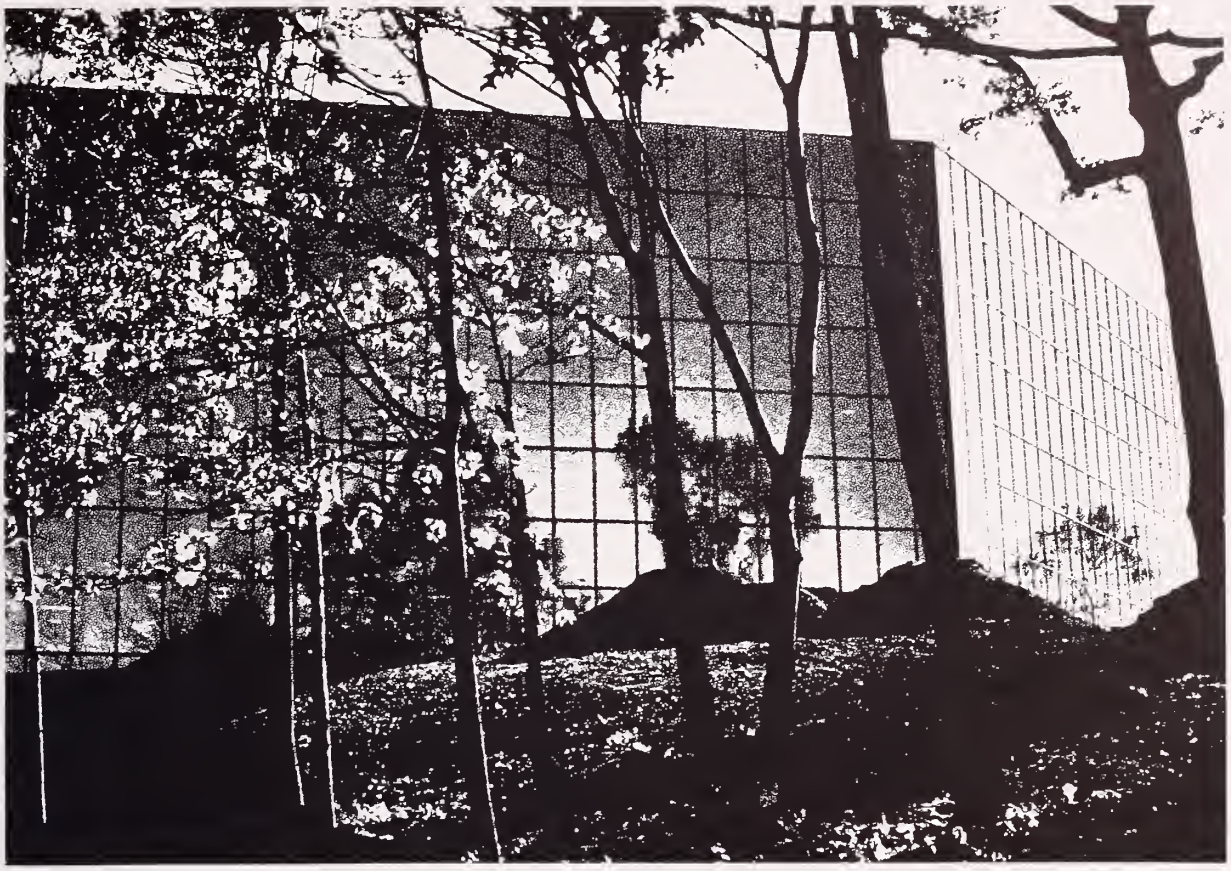

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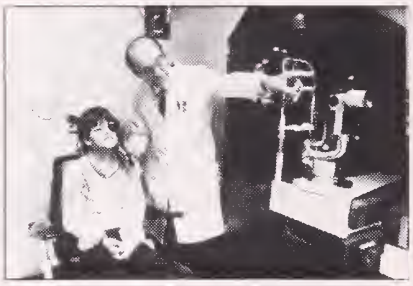

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Side-effects profile comparable to ZANTAC 150 mg b.i.d.[1-3]

Headache—sometimes severe—has been reported. Rare effects on the CNS, cardiovascular, GI, hepatic, and integumental systems have been observed, as well as rare cases of hypersensitivity reactions. See ADVERSE REACTIONS section of Brief Summary of Product Information before prescribing.

No significant interference with the hepatic cytochrome P-450 enzyme system at recommended doses

ZANTAC 300 mg h.s. had no significant drug interactions with theophylline or warfarin. The bioavailability of certain medications whose absorption is dependent on a low gastric pH may be altered when ZANTAC or other medications which decrease gastric acidity are administered.

*It is not known exactly how much acid inhibition is needed to heal ulcers.

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See next page for references and Brief Summary of Product Information.

IN ACTIVE DUODENAL ULCERS

Once-a-night h.s. therapy controls acid rain

Zantac® 300
ranitidine HCl/Glaxo 300 mg tablets

References: 1. Data available on request, Glaxo Inc. **2.** Ireland A, Colin-Jones DG, Gear P, et al: Ranitidine 150 mg twice daily vs 300 mg nightly in treatment of duodenal ulcers. *Lancet* 1984;2:274-275. **3.** Colin-Jones DG, Ireland A, Gear P, et al: Reducing overnight secretion of acid to heal duodenal ulcers. *Am J Med* 1984; 77 (suppl 5B):116-122.

ZANTAC® 150 Tablets
(ranitidine hydrochloride)
ZANTAC® 300 Tablets
(ranitidine hydrochloride)

BRIEF SUMMARY OF PRODUCT INFORMATION

INDICATIONS AND USAGE: ZANTAC® is indicated in:
1. Short-term treatment of active duodenal ulcer. Most patients heal within four weeks. Studies available to date have not assessed the safety of ranitidine in uncomplicated duodenal ulcer for periods of more than eight weeks.
2. Maintenance therapy for duodenal ulcer patients at reduced dosage after healing of acute ulcers. No placebo-controlled comparative studies have been carried out for periods of longer than one year.
3. The treatment of pathological hypersecretory conditions (eg, Zollinger-Ellison syndrome and systemic mastocytosis).
4. Short-term treatment of active, benign gastric ulcer. Most patients heal within six weeks and the usefulness of further treatment has not been demonstrated. Studies available to date have not assessed the safety of ranitidine in uncomplicated, benign gastric ulcer for periods of more than six weeks.
5. Treatment of gastroesophageal reflux disease. Symptomatic relief commonly occurs within one or two weeks after starting therapy. Therapy for longer than six weeks has not been studied.

In active duodenal ulcer; active, benign gastric ulcer; hypersecretory states; and GERD, concomitant antacids should be given as needed for relief of pain.

CONTRAINDICATIONS: ZANTAC® is contraindicated for patients known to have hypersensitivity to the drug.

PRECAUTIONS: General: 1. Symptomatic response to ZANTAC® therapy does not preclude the presence of gastric malignancy.
2. Since ZANTAC is excreted primarily by the kidney, dosage should be adjusted in patients with impaired renal function (see **DOSAGE AND ADMINISTRATION**). Caution should be observed in patients with hepatic dysfunction since ZANTAC is metabolized in the liver.

Laboratory Tests: False-positive tests for urine protein with Multistix® may occur during ZANTAC therapy, and therefore testing with sulfosalicylic acid is recommended.

Drug Interactions: Although ZANTAC has been reported to bind weakly to cytochrome P-450 in vitro, recommended doses of the drug do not inhibit the action of the cytochrome P-450-linked oxygenase enzymes in the liver. However, there have been isolated reports of drug interactions which suggest that ZANTAC may affect the bioavailability of certain drugs by some mechanism as yet unidentified (eg, a pH-dependent effect on absorption or a change in volume of distribution).

Carcinogenesis, Mutagenesis, Impairment of Fertility: There was no indication of tumorigenic or carcinogenic effects in lifespan studies in mice and rats at doses up to 2,000 mg/kg/day.

Ranitidine was not mutagenic in standard bacterial tests (*Salmonella, E coli*) for mutagenicity at concentrations up to the maximum recommended for these assays.

In a dominant lethal assay, a single oral dose of 1,000 mg/kg to male rats was without effect on the outcome of two matings per week for the next nine weeks.

Pregnancy: ***Teratogenic Effects: Pregnancy Category B:*** Reproduction studies have been performed in rats and rabbits at doses up to 160 times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to ZANTAC. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: ZANTAC is secreted in human milk. Caution should be exercised when ZANTAC is administered to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Use in Elderly Patients: Ulcer healing rates in elderly patients (65 to 82 years of age) were no different from those in younger age groups. The incidence rates for adverse events and laboratory abnormalities were also not different from those seen in other age groups.

ADVERSE REACTIONS: The following have been reported as events in clinical trials or in the routine management of patients treated with oral ZANTAC®. The relationship to ZANTAC therapy has been unclear in many cases. Headache, sometimes severe, seems to be related to ZANTAC administration.

Central Nervous System: Rarely, malaise, dizziness, somnolence, insomnia, and vertigo. Rare cases of reversible mental confusion, agitation, depression, and hallucinations have been reported, predominantly in severely ill elderly patients.

Cardiovascular: Rare reports of tachycardia, bradycardia, and premature ventricular beats.

Gastrointestinal: Constipation, diarrhea, nausea/vomiting, and abdominal discomfort/pain.

Hepatic: In normal volunteers, SGPT values were increased to at least twice the pretreatment levels in 6 of 12 subjects receiving 100 mg qid IV for seven days, and in 4 of 24 subjects receiving 50 mg qid IV for five days. With oral administration there have been occasional reports of reversible hepatitis, hepatocellular or hepatocanalicular or mixed, with or without jaundice.

Musculoskeletal: Rare reports of arthralgias.

Hematologic: Rare reports of reversible leukopenia, granulocytopenia, thrombocytopenia, and pancytopenia.

Endocrine: Controlled studies in animals and man have shown no stimulation of any pituitary hormone by ZANTAC and no antiandrogenic activity, and cimetidine-induced gynecomastia and impotence in hypersecretory patients have resolved when ZANTAC has been substituted. However, occasional cases of gynecomastia, impotence, and loss of libido have been reported in male patients receiving ZANTAC, but the incidence did not differ from that in the general population.

Integumental: Rash, including rare cases suggestive of mild erythema multiforme, and, rarely, alopecia.

Other: Rare cases of hypersensitivity reactions (eg, bronchospasm, fever, rash, eosinophilia) and small increases in serum creatinine.

OVERDOSAGE: There is no experience to date with deliberate overdosage. The usual measures to remove unabsorbed material from the gastrointestinal tract, clinical monitoring, and supportive therapy should be employed.

Studies in dogs receiving doses of ZANTAC® in excess of 225 mg/kg/day have shown muscular tremors, vomiting, and rapid respiration. Single oral doses of 1,000 mg/kg in mice and rats were not lethal. Intravenous LD_{50} values in rat and mouse were 83 and 77 mg/kg, respectively.

DOSAGE AND ADMINISTRATION: Dosage Adjustment for Patients with Impaired Renal Function: On the basis of experience with a group of subjects with severely impaired renal function treated with ZANTAC®, the recommended dosage in patients with a creatinine clearance less than 50 ml/min is 150 mg every 24 hours. Should the patient's condition require, the frequency of dosing may be increased to every 12 hours or even further with caution. Hemodialysis reduces the level of circulating ranitidine. Ideally, the dosage schedule should be adjusted so that the timing of a scheduled dose coincides with the end of hemodialysis.

HOW SUPPLIED: ZANTAC® 150 Tablets (ranitidine hydrochloride equivalent to 150 mg of ranitidine) are white tablets embossed with "ZANTAC 150" on one side and "Glaxo" on the other. They are available in bottles of 60 tablets (NDC 0173-0344-42) and unit dose packs of 100 tablets (NDC 0173-0344-47).

ZANTAC® 300 Tablets (ranitidine hydrochloride equivalent to 300 mg of ranitidine) are yellow, capsule-shaped tablets embossed with "ZANTAC 300" on one side and "Glaxo" on the other. They are available in bottles of 30 (NDC 0173-0393-40) and unit dose packs of 100 tablets (NDC 0173-0393-47).

Store between 15° and 30°C (59° and 86°F) in a dry place. Protect from light. Replace cap securely after each opening.

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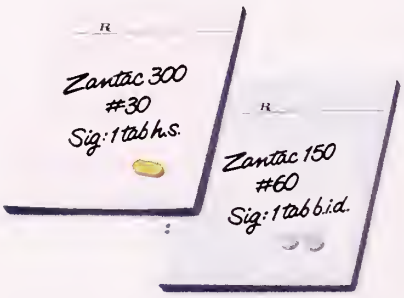

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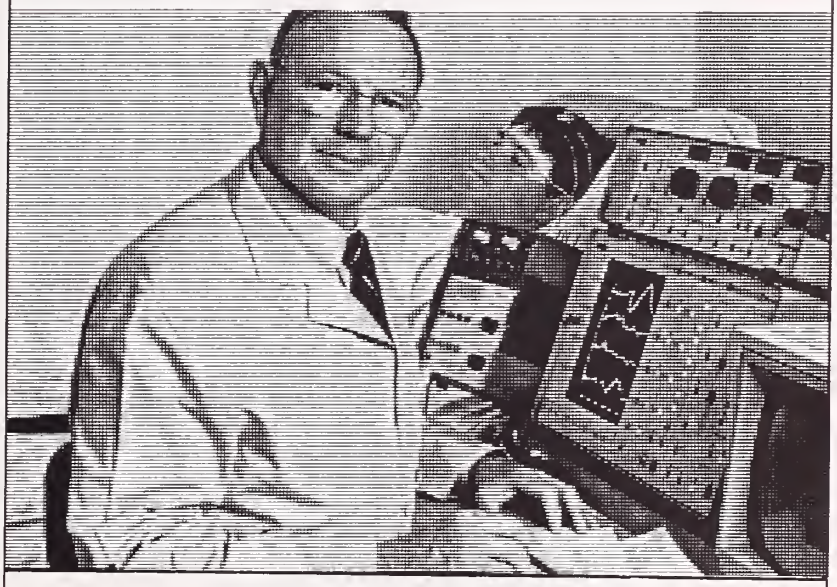

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Part 2: Treatment of Metastatic Breast Cancer

Chemotherapy For Breast Cancer*

GEORGE J. HILL, M. D.**
Professor of Surgery and Chief, Division of Surgical Oncology, University of Medicine and Dentistry of New Jersey - New Jersey Medical School, Newark

Editor's Note: Part 2 concludes this article, which is based on lectures presented by the author at the Sixth Annual Marshall University Surgical Symposium, Huntington, West Virginia, September 22, 1985. Part 1 appeared in the July issue of *The Journal*.

Metastases can occur in lymph nodes (80 per cent), lungs (61 per cent), liver (49 per cent), bones (47 per cent) and pleura (42 per cent). Treatment should be offered to virtually every woman with metastatic breast cancer. Priorities must be assessed continuously.

The costs, risks and potential benefits of treatment must always be considered, and the physician should plan ahead so the patient can always look forward with hope to the next visit, even when the disease progresses.

Combinations of chemotherapy and hormones have produced response rates reported to be as high as 90 per cent.

The goal of treatment for metastatic cancer is palliation, by which we mean prolongation of useful, pain-free life.

*Supported in part by National Cancer Institute grants 5R25CA19536 and 1R21CA-38212, a Research Award from the Veterans Administration, and support from the Huntington Clinical Foundation.

**Formerly from Marshall University School of Medicine, Huntington, West Virginia.

A recurrent, fatal outcome eventually develops in about one third of the 115,000 women in the United States who develop breast cancer each year, resulting in approximately 37,300 deaths from this disease annually. Metastatic breast cancer is sufficiently visible and indolent enough that most patients with metastatic breast cancer should be considered for treatment — unlike pancreatic cancer, in which the disease frequently progresses to a terminal state before it is even diagnosed. Furthermore, breast cancer is now well-known to be responsive to a wide variety of systemic treatments, thus arousing the expectation of patients and their families. Breast cancer tends to occur in women in their productive, active years, in contrast to the typical patient with head and neck cancer, or many of the patients with pancreatic, lung and large bowel cancer.

There has been increasing acceptance recently of the reasonableness of sequential, subtoxic chemotherapy rather than toxic combinations of drugs, since lifetime palliation is the realistic goal, not "cure," in patients with proven distant metastases.

Metastases can occur in nearly every organ, but predominantly in lymph nodes (80 per cent), lungs, (61 per cent), liver (49 per cent), bones (47 per cent) and pleura (42 per cent).[21] Tumors of the contralateral breast present a problem in diagnosis—some are new primaries while some are metastases. Even experienced pathologists sometimes cannot agree on whether a second breast cancer is a metastasis or a new primary tumor.

Treatment should be offered to virtually every woman with metastatic breast cancer. The spectrum ranges from the patient with a small asymptomatic lesion to the patient with extremely advanced disease who clearly is near death. The type of treatment, the intensity of therapy, and the goals of treatment require judgment and discussion with the patient and her family since the outcome varies significantly with performance status and the site of metastases.[9]

Priorities Assessed

Priorities must be assessed continuously in the treatment of patients with metastatic disease. Patients with multiple, large, rapidly growing lesions may present a critical problem while indolent asymptomatic lesions may be treated more or less at leisure. The location of lesions is particularly important in selecting modalities; spinal and intracranial lesions need radiation therapy whereas lymphangitic pulmonary metastases need multiple-drug chemotherapy. Since most patients with advanced disease have received prior adjuvant chemotherapy, selection of agents is often difficult. The hormone receptor status of the primary or metastatic tumor is given consideration, if known. But hormones are ultimately used for most patients anyway, and the discussion of ER/PR status thus is often sophistic, an intellectual exercise.

The patient's age, strength, attitudes, personal goals and socioeconomic status must be taken into consideration in planning therapy, and at each new decision point. There has been increasing acceptance recently of the reasonableness of sequential, subtoxic chemotherapy, rather than toxic combinations of

drugs, since lifetime palliation is the realistic goal, not "cure," in patients with proven distant metastases. Exceptionally long-term, complete responses occasionally do occur, admittedly in less than one per cent of patients, and provide a rationale for hope. This occurred in 3/500 patients in one series,[15] 9/647 in another,[14] and 1/438 in a third,[13] although in 0/162 in a fourth large series.[9] The oncologist therefore must be knowledgeable and generous in the use of non-specific therapy including steroids, antinausea drugs, mood stabilizers, and pain-relievers.

Treatment Methods

Treatment methods for metastatic breast cancer include surgery, radiation and systemic therapy. Non-specific therapy, including psychological support, is also essential in every case. Surgery may be used to diagnose recurrence, or even to eliminate it, for the time being. Hormone receptor status should be assessed whenever possible in biopsy or excision of recurrent or distant metastases. Palliation is sometimes given by chest tube, resection or by-pass of blocked hollow viscera, and by endocrine organ ablation, particularly oophorectomy in pre-menopausal women.

Radiation therapy should be considered when local recurrence develops, though a trial of systemic chemotherapy may be given using the local recurrence as a "marker" tumor. Systemic treatment methods are an embarrassment of riches — embarrassing because in spite of their power, they are rarely if ever curative. Chemotherapeutic agents include adriamycine (the most potent)—plus 5FU, methotrexate, cyclophosphamide, vincristine, alkeran, Thio-TEPA, and various new or experimental agents.[6] Hormone therapy usually begins with the anti-estrogen, tamoxifen, but megestrol, Halotestin, DES and several hormones can be used after tamoxifen, often in sequence. Androgens stimulate recovery from anemia, and corticosteriods often produce good mood elevation, in addition to their specific effects on metastases. "Medical adrenalectomy" with aminoglutethimide has by and large supplanted surgical adrenalectomy, and transsphenoidal hypophysectomy is probably the simplest (and, therefore, the preferred) surgical procedure when sustained adrenal supression is desired.

The costs, risks and potential benefits of treatment must always be considered, and the physician should plan ahead so the patient can always look forward with hope to the next visit, even when the disease progresses. A flow sheet and measurement form should be used to record drug doses, lab test results and tumor measurements.

The asymptomatic patient with metastases in non-critical sites should be treated gently, e.g. with tamoxifen or 5FU initially, in subtoxic doses, if possible. The symptomatic patient, particularly if lesions are present in critical sites, needs combination drug therapy, such as CMFVP or CAF, plus tamoxifen if there are no lymphangitic metastases, and the tumor is not thought to be hormone receptor negative. Prior adjuvant therapy, prior use of adriamycin, heart disease or pancytopenia are all various factors that must be considered in selecting the agent. The premenopausal woman with ER-positive disease probably should have an oophorectomy, and the very elderly patient should have a cautious trial of DES. Some of the responses in these two groups of patients are of very long duration, even without other treatment.

The cost, risks and potential benefits of treatment must always be considered, and the physician should plan ahead so the patient can always look forward with hope to the next visit, even when the disease progresses.

Response Rates

Response rates are often quoted as if they are known or knowable. Since combination chemotherapy and adjuvant therapy for non-evaluable disease became common in the past decade, we must look back 10-15 years for results to single agents.[4,6,8] Response rates vary with intensity of therapy and with numerous biological and patient-related factors, thus leading to wide variations in published results.

Responses to most of the agents cited are in the range of 21-50 per cent (partial plus complete responses, temporary). Adriamyicin's response rate is closer to 40-50 per cent, particularly when patient and physician are highly motivated, and the patient is in good general health. Selection of the agent or agents used should include consideration of side effects and cost as well as the expected response rate. Combinations of chemotherapy and hormones have produced response rates reported to be as high as 90 per cent,[5] but 50-60 per cent is more realistic for most patients. High doses and multiple drugs may improve the response rate and duration of response without affecting the survival time when compared with the same drugs given individually and in less toxic doses.

The ECOG experience[9] with CAF may be cited as a reasonable expectation: 23 per cent complete remissions, plus 39 per cent partial remissions; responses occurred in 65 per cent of ER-negative patients and in 70 per cent of ER-positive patients. Median duration of response was 11.4 months. Median survival time was 20.2 months after starting CAF. A significantly longer time to treatment failure and longer survival time were seen in patients with better performance status, ER-positive tumors, only one or two organs involved, and dominant site other than soft tissue. There were no persistent complete responses.

Treatment Goal

The goal of treatment for metastatic cancer is palliation, by which we mean prolongation of useful, pain-free life. When this is no longer possible, the physician must be compassionate and considerate, try to arrange home care or hospice management, and attempt if at all possible to pay last respects to the patient after the disease has run its final course. We must continue to search for improved methods to treat patients with breast cancer, "shaking off the dogma" of current

methodology[22] so the future can be better than either the present or the past.

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Note: References not cited in Part 2 appear in Part 1 of this article in the July issue of *The Journal*.

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Noninvasive Testing For Asymptomatic Carotid Artery Disease

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Stroke is one of the leading causes of incapacitation and death in the United States. Most strokes appear to be the direct or indirect result of cervical carotid artery disease, and 50 per cent of these strokes present without warning symptoms. There is evidence that asymptomatic patients with 75- to 80-per cent carotid artery stenosis are at significant risk for developing a stroke. These patients may benefit from a carotid endarterectomy with low complication rates. Patients with general risk factors for stroke and cervical carotid bruits might be tested. The combination of a direct and an indirect noninvasive test can be utilized to detect significant stenosis in the cervical carotid arteries.

Introduction

In 1982, stroke was the third leading cause of death in America.[1] There are 500,000 people per year who suffer from a new stroke, and more than 20 per cent of these individuals die within one month.[2] Many of these patients never fully return to their prior activities. The economic impact from the cost of health care and lost wages is estimated at $9.5 billion annually.[2]

Atherothrombotic cerebral infarction is the most common type of stroke, and about two thirds of such strokes appear to be the direct or indirect result of cervical carotid artery disease (as opposed to intracranial vessel disease).[3] Unfortunately, 50 per cent of thromboembolic strokes will occur without warning symptoms.[3] An important strategy to prevent a large number of such strokes is to identify those neurologically intact individuals with significant carotid artery lesions and treat these before they become symptomatic.

There has been considerable interest in determining which patients may be at risk for developing a stroke. Conditions which may predispose an individual to have a stroke include hypertension, diabetes mellitus and cardiac disease. Elevated serum cholesterol and triglycerides, cigarette smoking and obesity also appear to increase the risk of stroke.[4,5]

Stroke risk is positively correlated with the degree of carotid artery stenosis. If the stenosis is greater than 75 per cent, the risk of a stroke or transient ischemic attack (TIA) may be as great as 15 per cent per year, as demonstrated in the Toronto Asymptomatic Bruit Study.[6] In another report by Roederer et al., 162 patients with mid-cervical bruits were followed for three years.[7] Patients with an 80-per cent (or greater) stenosis were found to have an incidence of ipsilateral TIA or stroke of 33 per cent. This was significantly higher than the 0.4-per cent incidence of such events in patients with a less than 80-per cent stenosis. All patients who suffered a stroke had carotid stenosis of 80 per cent or greater. Although the numbers in these reports are relatively small, the data suggest that asymptomatic patients with carotid stenosis of 75-80 per cent are at particularly high risk of suffering a stroke. If this population could be easily, cost effectively, and safely identified, its members could benefit from carotid endarterectomy.

Patients with an 80-per cent (or greater) stenosis were found to have an incidence of ipsilateral TIA or stroke of 33 per cent.

To be an effective treatment, the risk of that treatment must be less than the risk of the disease. Dyken and Pokras reviewed data from the National Hospital Discharge Survey, the Veterans Administration hospitals, and the Armed Forces hospitals in an attempt to study all endarterectomies performed in the United States between 1971-1982.[8] They estimated the mortality of this surgery, which was fairly consistent for each of the years examined, to be 2.8 per cent. The overall perioperative stroke rate was predicted to be 3-10 per cent. While the combined morbidity and mortality for carotid endarterectomies performed in major referral centers may be as low as four

per cent, there are series with major complication rates ranging from 10-20 per cent.[6,9] A peri-operative stroke and/or death rate of less than 10 per cent (and preferably no more than five per cent) is required before it can be maintained that an asymptomatic patient cohort will benefit from carotid endarterectomy.[6] It is important, therefore, to be aware of a surgeon's complication rate before referring asymptomatic (or even symptomatic) patients for surgical intervention.

Screening

Invasive studies such as conventional angiography and digital subtraction angiography provide the most complete and accurate information regarding the extracranial (and intracranial) circulation. These invasive tests, however, carry risk, are unpleasant and are costly. Therefore they are inappropriate when used as screening studies.

The simplest screening method may be auscultation of the cervical carotid arteries. A bruit occurs in 0.9 per cent of asymptomatic individuals aged 45-54 years with increasing incidence in older populations. A bruit is present in five per cent of patients age 75 years or older.[10] The association of a bruit with significant carotid artery disease has been studied extensively. The specificity is not great since between 40 per cent and 75 per cent of asymptomatic patients with a bruit have less than 50-per cent stenosis of the carotid artery.[11] It also has been estimated that as many as one quarter of asymptomatic patients with significant carotid stenosis do not have bruits.[11]

Over the past decade, several noninvasive tests have been developed to assist in the evaluation of asymptomatic patients in an effort to determine which patients are at the greatest risk of developing a stroke. Noninvasive tests also are useful in following patients who are found to have nonsignificant carotid artery disease after undergoing carotid angiography for other reasons. Although the natural history of such lesions is not fully known, it appears they worsen with time. Cigarette smoking and diabetes mellitus have been linked to accelerated rates of carotid artery disease progression.[7] If noninvasive tests demonstrate stenosis of more than 80 per cent, invasive testing and endarterectomy may be indicated.

Noninvasive tests can be categorized into two groups: *direct tests*, in which there is evaluation of the artery itself, and *indirect tests*, in which carotid artery disease is assessed by examining its effects on the distal circulation (Table).

Direct Tests

The best tests include *direct carotid phonoangiography, spectral quantitative phonoangiography, Doppler imaging and B-scan ultrasonography. Direct phonoangiography* is performed by recording bruit intensity during the cardiac cycle. If the bruit is of high frequency as well as long duration (with a diastolic component), the test especially is indicative of moderate to severe stenosis. A major drawback to phonoangiography is that a bruit may not be detectable when a very tight stenosis (85-90 per cent) creates a severe decrease in flow through the artery. Because of the low specificity of phonoangiography, it is no longer widely used.

Noninvasive tests can be categorized into two groups: direct tests, in which there is evaluation of the artery itself, and indirect tests, in which carotid artery disease is assessed by examining its effect on the distal circulation.

A related test which examines the intensity/frequency characteristics of the bruit, *spectral phonoangiography*, plots the intensity for each frequency during a part of systole. It has been found that intensity increases up to a critical frequency, the "break frequency," after which the intensity begins to drop off. The break frequency is a function of vessel diameter and indicates the size of the lumen. This method can determine lumen diameter to within 0.5 mm of the measured size for pathologic specimens in those patients with bruits which can be analyzed.[21] As mentioned previously, a bruit may not be present with a tight stenosis.

TABLE

Direct Studies	*Indirect Studies*
Direct carotid phonoangiography	Ophthalmodynamometry
Spectral phonoangiography	Oculoplethysmography
Doppler imaging	Periorbital Doppler
B-mode ultrasonography	

Carotid blood flow can be directly examined using the *Doppler technique*.[13] In this method, a very high frequency sound is directed toward the carotid arteries. The signal is reflected back to the surface by the stream of red blood cells which are moving through the vessel. The reflected signal is shifted in frequency to a degree proportional to blood velocity (Doppler effect). The frequency difference between transmitted and received signals can be used to determine the direction and velocity of blood flow. Blood velocity changes with stenosis, and these changes can be related to the degree of narrowing. The transmission of sound from the Doppler instrument may be continuous (continuous wave) or pulsed (range-gated). Continuous wave Doppler provides information related to average flow velocity in the arteries beneath the probe. Range-gated Doppler is capable of sampling discrete volumes of blood within different vessels or even in different parts of a single lumen. These methods require considerable skill on the part of the examiner, and the validity of results are dependent on this factor.

B-mode ultrasonic scanning can be used to visualize directly arterial anatomy.[13] Multiple transducers are sequentially driven to produce a 5-10 mHz signal which can image the common, internal and external carotid arteries as accurately as 0.8-0.5 mm.[14] However, B-mode ultrasonography correlates with angiography in only 80 per cent of cases.[13] This method is most limited by acoustic shadows cast by calcified plaques. It cannot identify lesions above the mandible or sonolucent plaques (plaques with no detectable echo). Ulcerations are not reliably identified. B-mode ultrasonography cannot distinguish between occlusion and tight stenosis. Con-

siderable skill is required to perform this test accurately.

Recently B-mode ultrasonography has been performed with simultaneously superimposed continuous wave or range-gated Doppler. This method, called *Duplex scanning*, is capable of providing an image of the neck vasculature as well as information regarding Doppler data about flow through the vessels.[15] Although Duplex scanning appears to be accurate and is becoming increasingly successful, it is only semiquantitative and requires expensive equipment.

Indirect Tests

Indirect tests for carotid artery disease include *ophthalmodynamometry*, *oculoplethysmography* and *periorbital Doppler ultrasonography*. These tests rely on the fact that hemodynamically significant carotid artery disease affects blood flow in the deep and superficial orbital regions. Normally, blood flows through the internal carotid artery to the ophthalmic artery which supplies the eye as well as the supraorbital and supratrochlear arteries.

All noninvasive tests (especially indirect tests) are limited in their ability to determine the presence of an ulcerated plaque without concomitant stenosis.

The deep orbital flow is assessed via the ophthalmic artery. *Ophthalmodynamometry* estimates ophthalmic artery pressure. This is best performed by two examiners. The central retinal artery pulsations are visualized ophthalmoscopically by one while the second applies a measured pressure to the anesthetized globe at a point adjacent to the limbus. As the intraocular pressure increases, pulsations appear in the central retinal artery. This is the diastolic pressure of that vessel. The pressure is slowly increased until the pulsations disappear, indicating the central retinal artery systolic pressure. The systolic and diastolic central artery pressures of one side are compared to the other. A difference of 15 per cent or more between the diastolic pressures of the two sides is suggestive of an abnormality.[13]

Oculoplethysmography (OPG) is another means of indirectly evaluating the internal carotid artery via the ophthalmic artery. Two different methods of oculoplethysmography have been developed. The *OPG-Gee method*, similar to oculodynamometry, involves altering intraocular pressure.[16] The intraocular pressure is first elevated using a scleral suction cup and then allowed to fall slowly. The point at which one begins to detect pulsations in the central retinal artery is the ophthalmic artery systolic pressure. The pressures of each side are then compared to the other. The *OPG-Kartchner* method involves monitoring the arrival times of the ocular pulse wave of each eye.[71] A cup is gently attached to the eye with a small amount of suction. Using this cup, the ocular pulse wave (transmitted through the globe) is electronically recorded. The arrival times of each wave as well as the waveforms are graphically illustrated and examined. Each side is compared to the other. The OPG-Kartchner method will identify 89 per cent of patients with a stenosis of 40 per cent or greater.[17] The false negative rate of about 10 per cent is usually due to bilateral disease. Overall, OPG-Kartchner testing is simple and economic. It is not accurate in cases of bilateral disease.

In severe internal carotid stenosis, the flow through these small superficial vessels may be decreased or reversed. Flow abnormalities in the supraorbital and supratrochlear arteries can be accurately evaluated with *directional periorbital Doppler ultrasonography*.[13] Supraorbital Doppler can detect 88 per cent of patients with hemodynamically significant internal carotid artery lesions, but it has a 13-per cent false positive rate. Supratrochlear Doppler studies have only a one-per cent false positive rate, yet are only able to detect 48 per cent of severe stenotic internal carotid lesions.[18] One drawback is that only qualitative information is provided. Also, the results may be influenced by external carotid artery disease.

Discussion

None of the tests mentioned is ideal. All noninvasive tests (especially indirect tests) are limited in their ability to determine the presence of an ulcerated plaque without concomitant stenosis. Direct tests are sensitive and specific for carotid disease, and they usually will become positive before indirect tests. But indirect tests are required to assess severe bifurcation disease and high cervical carotid lesions as well as to monitor the hemodynamic significance of a stenotic lesion. Therefore the best strategy for noninvasive monitoring is to include a combination of direct and indirect tests.[19,20] This provides the hemodynamic information obtained by indirect testing as well as direct evaluation of the carotid artery bifurcation.

Ackerman has reviewed the role of noninvasive carotid evaluation as it is used at the Massachusetts General Hospital.[21] Asymptomatic bruits are evaluated noninvasively with direct and indirect tests on an outpatient basis. If the stenosis is less than 80 per cent, these individuals are reexamined in four to six months. Patients are referred for angiography when there is significant progression of hemodynamic lesions. Over a six-year period, no patient followed in this manner suffered a stroke prior to intervention; therefore, noninvasive carotid testing was felt to improve the clinical management of patients suffering from cerebrovascular disease at the Massachusetts General Hospital.

Therefore the best strategy for noninvasive monitoring is to include a combination of direct and indirect tests.

Conclusion

The above studies suggest there is a role for noninvasive testing to evaluate patients who are at risk for carotid artery disease. If stenosis of 75 per cent to 85 per cent or greater is identified with non-invasive studies, confirmation should be obtained with invasive studies. Patients with angiographic evidence of severe carotid artery disease may benefit from

carotid endarterectomy performed by surgeons with acceptable complication rates.

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A Case Report

Fluorescein Angioscopy In Occult Gastrointestinal Hemorrhage

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Utilizing a method of cobalt blue visible light for the excitation of intravenous sodium fluorescein, a case of occult gastrointestinal hemorrhage was evaluated.

Intravenous sodium fluorescein has been widely used in medicine and surgery. Its use in upper gastrointestinal hemorrhage with an ultraviolet light source has been described,[1,2] as has an experimental model using a cobalt blue exciting filter,[3] which provided the method used in the present case report.

A 57-year-old white female with end-stage renal failure due to membranous glomerulonephritis since 1977 was admitted to the dialysis unit of Akron (Ohio) City Hospital on May 9, 1980. Her history was one of progressive anemia due to gastrointestinal blood loss since July, 1979, with transfusion of approximately 40 units of blood, and requiring at admission about three units of blood per week. She had undergone three prior gastroscopies which revealed only telangiectasias of the duodenum, a prior negative colonoscopy, and a negative arteriogram.

Admission examination revealed a pale woman with puffy subcutaneous tissues and no angiomatous lesions. Rectal examination showed stool positive for occult blood. DTRs were hyporeflexic with an increased relaxation phase. The remainder of the examination was not contributory.

Admission lab studies revealed a hemoglobin and hematocrit of 3.4 and 10.7, respectively. BUN was 100mg/dl and serum creatinine 13.3mg/dl; T4 was 0.9 mcg/dl.

The morning following admission she underwent a standard gastroscopy with an Olympus GIF-Q panendoscope. Multiple small, non-bleeding telangiectasias were noted, as was fresh blood in the stomach. A 2-cc bolus of 25-per cent sodium fluorescein followed by a 5-cc normal saline flush was rapidly injected into a peripheral 20-gauge jelco IV site. After about one minute, fluorescence appeared in streaks throughout the

duodenum as far as the endoscope could visualize. The telangiectasias were not outlined and no fluorescence marked them as bleeding sites. The fluorescence persisted for approximately 15 - 20 minutes and then faded.

The patient continued to receive transfusions during dialysis; with synthroid and cytomel treatment of the hypothyroidism, her bleeding ceased for three weeks, only to resume to pretreatment levels.

Discussion

With filtered light, sodium fluorescein has been shown to be a surface fluorescent phenomenon[4] that marks bleeding sites in gastrointestinal hemorrhage.[1,2,3] The current role of such a method may be in a research setting for the study of the pathophysiology of gastrointestinal bleeding. The potential advantages of a cobalt blue visible light filter system may be in closer adherence to the peak absorption of fluorescein at 490nm (peak emission at 520nm), better visual adaptation by the endoscopist, and its adaptability to most current light sources and endoscopic equipment.

The case report presented confirms the earlier findings that ultraviolet fluorescein endoscopy has the ability to ascertain more accurately the pathophysiology of occult gastrointestinal hemorrhage. Further clinical studies are necessary to assess the role of this technique in occult upper and lower gastrointestinal bleeding.

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New Risk-Measuring Method Proposed

Reference ranges for cholesterol levels without an accompanying designation of risks associated with various ranges may be misleading and falsely comforting to patients and physicians, according to a report in the *June Archives of Pathology and Laboratory Medicine.* Bruce M. McManus, M. D., Ph.D., of the University of Nebraska Medical Center, submitted blood samples to 108 laboratories across the U. S. "Fewer than on half of the laboratories made any attempt to specify levels of risk associated with elevated cholesterol levels," he said. To provide better assessment of risk, Doctor McManus proposes an algorithm for obtaining a total risk score, based on cholesterol and eight other factors.

He adds, "We must continue to refine our basic knowledge about the mechanisms of major risk factors and the other potentially important but less well understood risk factors."

'Getting Maudlin'

Forgive me, but I've always regarded the endless thank-you's and tearful statements of gratitude by people leaving office as a little boring. My cynic's mind said "Sure they helped you, you clod. They are supposed to keep you out of trouble."

Now that I'm in that position, I can't muster any cynicism. It's been a difficult year in many ways, but I've never had so much fun. West Virginia physicians and their spouses are outstanding people. Jeanny Kalaycioglu and the Auxiliary have achieved a lot in support of health-related issues and the causes of organized medicine. Mert Scholten and the WVSMA staff work tirelessly and effectively in our behalf.

The folks where I hang my hat helped keep me on schedule and filled in when needed. My wife, June, although unable to travel with me much of the year, was always supportive. I didn't get to spend as much time with my grandchildren, Lauren and Evan Zackquill, as I would have liked, but I'll make it up to them this year.

Did I learn anything this year?

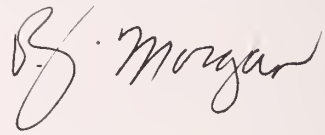
1. I learned that we may not always agree, but we are an effective political voice. In that regard, we urgently need WESPAC contributions now to support candidates in the fall elections.

2. I learned that there are laymen including many members of our citizen legislature who do understand the problems we have and are willing to try to help us address them if we give them a chance.

3. I learned that West Virginia physicians act maturely and responsibly in the face of great adversity such as the threat of loss of liability coverage this past year.

Skip and Linda Turner will bring strong leadership this coming year. Let's make it a great year for the West Virginia State Medical Association.

My sincere thanks to you all for your help and support.



David Z. Morgan, M. D., *President*
West Virginia State
Medical Association

Talent And Character

Editor's Note: What better way to commemorate Dr. David Z. Morgan's year as WVSMA President than to print the following comments of admiration and appreciation by county society presidents, only a few, we are sure, of the state doctors who have similar words of praise. These remarks also speak for *The Journal*, and we say "Bravo!, President Morgan."

Like many other physicians in this state, my association with Dr. David Morgan began during medical school training at West Virginia University. He provided a sense of understanding and care for the medical student as well as his patients. You can easily see this characteristic in the way he has approached the presidency of the West Virginia State Medical Association. A determination to address the issues fairly, combined with a firm commitment to our goals, helped the Association through a difficult year.

There is no doubt in my mind that by spending many hours in Charleston with various legislators, Doctor Morgan has improved the public's understanding of what we as physicians represent and helped ease the friction over the liability crisis.

I join with other physicians across the state in thanking Doctor Morgan for a job well done. He has added an important chapter to the history of the West Virginia State Medical Association.

James A. Genin, M. D., *President*
Harrison County Medical Society

David Z. Morgan, M. D.

As President of the Kanawha Medical Society, I have had many contacts with Doctor Morgan over the last seven months. During the multiple conversations and phone calls I have always been impressed by his patience, being well aware the questions I asked were undoubtedly asked by many others since all the county societies share the same types of problems.

As has been obvious to anyone who was involved in the recent malpractice hassle, he has spent a very great amount of time working on emotionally charged issues. Throughout my contacts with him he has always been effective and, at the same time, calm and considerate.

One feels fortunate to be able to have associations with individuals with his talent and character.

Charles C. Weise, M. D., *President*
Kanawha Medical Society

We, the members of the Mercer County Medical Society, wish to extend a special letter of thanks and appreciation to Dr. David Z. Morgan. His selfless and tireless efforts for the promotion and understanding of our local and state memberships have borne fruits. His gentle nature and his ability to cope with the most difficult of situations have well-served the causes of our present multiple crises.

Doctor Morgan will be long remembered by all of us for his desire to improve the medical services both in our immediate area and in the state. In addition, he has worked continuously to better our standing with our patients and the community as well as with local and state officials.

On behalf of the Mercer County Medical Society, I congratulate our distinguished colleague for his outstanding success and wish him well in all his future endeavors.

Surrinder K. Chopra, M. D., *President*
Mercer County Medical Society

As President of the Monongalia County Medical Society I am writing this letter in appreciation of Dr. David Morgan's year as President of the West Virginia State Medical Association

Those of us who know Doctor Morgan well from long years of association expected excellent leadership and forward movement during his

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year as President, and once again Doctor Morgan did not disappoint us. During this very difficult year with its question of availability of liability insurance and the threat of colonization of West Virginia by national medical chains, Doctor Morgan has provided excellent leadership and moral support for the state's physicians. He has been an effective mediator between the political profession and the medical profession as well as among the members of the medical profession in this state.

Those of us who work with Doctor Morgan are aware of the great many hours he spent at being President of the State Medical Association, and I think it is safe to say that his labors have yielded great rewards. We would like to say "Well done!"

Anthony DiBartolomeo, M. D.,
President
Monongalia County Medical Society

Go, You 'eers

Some academicians overlook no opportunity to promote their own bias. The tragic deaths of sports figures by cocaine overdoses have been the most recent occasion for a snobbish grousing over the indignity of witnessing those of putatively inferior mental endowments enjoying worldly rewards beyond the capacity of most professional academicians even to dream.

"Isn't it terrible that these unfortunate creatures are victimized by colleges so intent on making money that they deny these poor brutes the benefits of required class attendance and passing grades." So go the commentaries with a symphony of sighs and clucking tongues as accompaniment.

Hogwash! Baloney! Blaaaat!! What flimsy and transparent cant! The intellectual life is not the only life. Some like Bach and some the Beetles. Some like Tolstoy and some the comic page. Some use their brains to direct soaring muscles and others soaring thoughts.

What athlete will say that even one brief moment in the rarefied atmosphere of athletic stardom was not worth the effort, the sacrifice, the discipline of athletic endeavor? These are moments as incomprehensible to intellectual protagonists as color to the congenitally blind. Who will offer the argument that any professional athlete might better have spent his time in the library than in the gym?

The word-combat of intellectual adversaries is an anemic and risible substitute for the real thing to warrior athletes. And these strange non-muscular contests are looked upon with far more tolerant understanding by athletes than professional sports are by intellectuals.

Who cares if a college makes money promoting athletic events? Any money made is gladly received by college administrations and some significant part of that money is probably used to build libraries and endow academic chairs for some of those providing the source of intellectual snobbery.

Pity the poor athlete? Let's knock it off. He doesn't need it. He is doing what he wants to do. He is sharpening his motor skills for his important life work while he puts up with misguided efforts to distract him into intellectual pursuits of little interest or value to him. In that regard those who would chain him to the classroom have near as great potential for damage to him as a common drug peddler.

Athletes and their performances are to be enjoyed rather than pontificated upon. Let's get on with the game. Wonder how "them 'eers" are going to do this year?

Cleaning House

Calling on the Medical Profession to recommit itself to an ethic of viewing the patient as a person, John J. Coury, Jr., M. D., was sworn in as the 141st President of the AMA in June.

In an inaugural address decrying society's increasing tendency to view individual human beings as "consumers," "beneficiaries," or "recipients," Doctor Coury, a Port Huron, Michigan, general and pediatric surgeon, noted that "if people can be reduced to these impersonal terms, it becomes easier to reduce funding of social and health programs."

He said that the message he will carry across the nation in his year as president will be that the profession must maintain "its rightful position as a leader in making this nation's health policy," and that the profession must also "become more committed to taking forceful action against physicians who are 'sore spots' in our profession."

"Your Board of Trustees recommends that the AMA . . . call on physicians to renew their commitment to report professional misconduct . . . to expand and improve its data bank so that credentials and practice histories can be verified more quickly and effectively.

"This is medicine taking charge, cleaning its house, becoming effective. In the coming year I will ask all physicians to help me carry this flag," Doctor Coury said.

Charles E. Turner, M. D.

Robert L. Volle, Ph.D.

AMA President To Address House

Convention Keynoter NBME Chief, Doctor Turner To Be Installed

Robert L. Volle, Ph.D., a pharmacologist soon to become President of the National Board of Medical Examiners, will be the keynote speaker for the WVSMA Annual Meeting Thursday morning, August 14.

Doctor Volle, currently Associate Dean for Research and Basic Sciences at the University of Kentucky, Lexington, will deliver The Thomas L. Harris Address: "The National Board, Medical Education and Licensure" during the opening ceremonies preceding the first scientific session.

He is a chemistry graduate of West Virginia Wesleyan College, and held several posts at West Virginia University from 1983 to 1985 — Associate Vice President for Research and Graduate Studies, and Interim Vice President for Academic Affairs and Research.

The Association's 119th Annual Meeting will be held August 12-17 at the Greenbrier in White Sulphur Springs. Some 475 physicians, Auxilians and others are expected to attend the convention.

Ph.D. From University of Kansas

Doctor Volle, who went to the University of Kentucky after leaving the WVU post, received his Ph.D. in pharmacology in 1959 from the University of Kansas.

He has served on committees and the Executive Board of the National Board of Medical Examiners for more than 15 years. In announcing his new appointment, C. William Daeschner, Jr., M. D., Chairman of the Board, remarked, "In addition to his recognized expertise as an educator and scientist in his own discipline, Doctor Volle has a unique capability to relate and communicate effectively with the many important national organizations served by the NBME."

Before going to WVU, Doctor Volle held positions at Tulane University (1965-67) and the University of Connecticut (1967-1983). He will assume duties with the NBME in Philadelphia September 2.

He is the author or co-author of some 94 scientific articles, 10 reviews, and six textbook contributions.

Doctor and Mrs. Volle are the parents of five grown children.

AMA President to Speak

The convention schedule will begin with a 10:30 A. M. meeting of the Executive Committee on Tuesday, August 12, an Insurance Committee meeting at 3 P. M. Tuesday, and the usual preconvention meeting of the Council at 9:30 A. M. Wednesday. It was announced earlier that the AMA President, Dr. John Coury, Jr., will address the first session of the House of Delegates Wednesday afternoon. Doctor Coury, of Port Huron, Michigan, is a general and pediatric surgeon.

Dr. Charles E. Turner, Huntington internist-gastroenterologist, will be installed as WVSMA President to succeed Dr. David Z. Morgan of Morgantown during the second House session Saturday, August 16.

Doctor Morgan will deliver his Presidential Address at the second House session.

In addition to the opening general scientific session Thursday morning noted above, there also will be scientific sessions Friday morning and Saturday morning featuring nine speakers.

Accreditation

The scientific program has been approved for 17 credit hours in Category 1 of the AMA Physician's

Recognition Award, and will carry 15½ Prescribed credit hours as approved by the American Academy of Family Physicians.

Conventioneers are urged to visit some 35 commercial exhibits and 17 scientific exhibits in the Exhibit Center (see box story in this issue of *The Journal* for visiting hours).

About 15 affiliated societies, sections and committees of the Association, and other medical groups, also will have business and scientific sessions on Friday and Saturday, many in the form of breakfast and luncheon meetings.

A two-part WVSMA Loss Control Seminar will be held Thursday and Friday from 2 to 5 P. M. With enrollment limited to 50 physicians, the program is approved for six hours of Category 1 credit. For additional information, see the July issue of *The Journal* (Page 239) or call Candy Sayre at headquarters, (304) 925-0342.

Social Activities

Social activities will include the President's Reception Wednesday evening at 6:30 in the Taft Room, cocktail parties for WVU alumni, Medical College of Virginia alumni, and exhibitors in the Exhibit Center Thursday evening at 6:30, a dance with Bo Thorpe and his Orchestra Friday evening at 9 o'clock in Chesapeake Hall (co-hosted by WVSMA and the Auxiliary), and reception honoring new officers of the Association and Auxiliary Saturday evening at 7 o'clock on Chesapeake Terrace.

After-dinner drinks will be available during the Friday evening dance courtesy of Chapman Printing Company of Charleston.

The Bo Thorpe Orchestra ("with the Big Band sound") of Rocky Mount, North Carolina, was well received at its first appearance during the 1985 convention in Charleston. The 18-member orchestra has been praised for its danceable style, high musical quality and ability to please audiences of all ages at the same time.

Dance guests will be asked to present complimentary invitations, which may be obtained at either the WVSMA or Auxiliary registration desk.

Please see the official program and related articles in this issue of *The Journal* for specific convention activities and speakers.

The annual meeting of the Auxiliary, with Jeanny Kalaycioglu (Mrs. M. V.) of Shinnston the current President, as usual will hold its meeting in conjunction with that of the Association. The official Auxiliary program also appears in this issue of *The Journal.*

Awards To CAMC/WVU Residents, Staff In June

Thirty-five participants in the Charleston Area Medical Center/West Virginia University Medical Center, Charleston Division residency program completed their residencies and were recognized at Awards Night ceremonies June 20.

Drs. Renee R. Lamm and Elbert G. Warren shared the Research Day first prize award for original research. Dr. John R. Meek received the third prize award. Dr. Mark C. Bates received the first prize in the student category for original research. Dr. Timothy W. Nelson received the second prize.

First prize for Research Day subject review was awarded to Dr. William R. Sims. Dr. Dale E. Green received the second prize.

Dr. Victoria C. Serbia received first prize for Research Day case presentation. Doctor Lamm received the second prize and Dr. Stephen H. Bush received third.

Dean's prizes were presented to a resident in each department who exhibits excellent professional performance. Recipients were: Drs. Richard H. Workman, Jr., behavioral medicine and psychiatry; Gina R. Busch, obstetrics-gynecology; John L. Chapman, surgery; William R. Sims, internal medicine; Lester Labus, family practice; and Charles Andrew Kennedy, D.D.S., dentistry.

Research Day and Dean's Prize winners received a cash award presented by Edward H. Maier, President of The Sarah and Pauline Maier Scholarship Foundation, Inc., and Dr. William O. McMillan Jr., Associate Vice President for Health Sciences, WVU Charleston Division.

The House Staff Award was presented to Dr. William R. Sims, Past President of the CAMC house staff council.

Faculty Awards

The following awards were presented to CAMC and WVU clinical faculty by the residents:

The Medical Education Award for significant contributions to medical education was presented to Dr. Brittain McJunkin of the Department of Internal Medicine, Section of Gastroenterology.

The Clinician of the Year Award was given to Dr. Richard E. Kleinmann, Department of Internal Medicine, Section of Endocrinology.

The Vincent Von Kern Award, awarded by surgery residents to the clinician who has contributed significantly to their education, was presented to Dr. Ali AbuRahma.

Dr. John A. Hostler received the Pediatrics Attending Physician of the Year Award for contributions to the Department of Pediatrics house staff.

The Dr. Daniel D. Upthegrove Award, initiated this year, was awarded to Dr. J. J. Smith by the Department of Behavioral Medicine and Psychiatry.

CATEGORY 1, AAFP CREDIT

The 1986 Annual Meeting of the WVSMA will be held at the Greenbrier in White Sulphur Springs, WV.

The West Virginia University School of Medicine is accredited by the Accreditation Council for Continuing Medical Education (ACCME) to sponsor continuing medical education for physicians and certifies that this continuing medical education offering meets criteria for 17 credit hours in Category I of the Physician's Recognition Award of the American Medical Association.

The Annual Meeting program will carry 15½ Prescribed Credit Hours as approved by the American Academy of Family Physicians.

Jeanny Kalaycioglu

Pat Durham

Annual Meeting Program Completed

AMA, SMA Heads Auxiliary Guests

Pat Durham (Mrs. Mylie E., Jr.) of Houston, Texas, and Margaret Ann Morgan (Mrs. Frank E.) of North Little Rock, Arkansas, will be among honored guests when the Auxiliary to the West Virginia State Medical Association holds its 62nd Annual Meeting August 13-16.

The meeting again will be held concurrently with the WVSMA Annual Meeting at the Greenbrier in White Sulphur Springs.

Mrs. Durham was installed in June as the new President of the American Medical Association Auxiliary. She will deliver the keynote address during the opening Auxiliary session beginning at 9:30 A. M. Thursday, August 14.

Also speaking to the Auxiliary, during the Friday morning session, will be Mrs. Morgan, who is President of the Southern Medical Association Auxiliary.

Mrs. Durham has served as President of both her state and county auxiliaries and in numerous elected and appointed positions at the national level.

In Houston, the AMA Auxiliary President works for the scholarship programs of the Houston Livestock Show, has been involved with the city's Museum of Medical Science, and participates in programs for the Houston Zoological Society and Citizens for Animal Protection.

To assume the position of Auxiliary President, Mrs. Durham has taken leave from Bernice Wesley, Inc., in Houston where she is employed as fashion buyer and Assistant General Manager. She studied fashion and styling in her hometown of Houston and in New York.

She also works in the Blue Bird Circle, the organization that founded and supports the Blue Bird Clinic for children with neurological disorders.

(Continued on Next Page)

Margaret Ann Morgan

Committee on Nominations To Meet August 15

The WVSMA's Committee on Nominations shall consist of district Councilors, and the Junior Councilor-at-Large, who shall serve as Chairman. The Councilors from the odd-numbered districts shall serve as the nominating committee in odd-numbered years, and the Councilors from even-numbered districts shall serve in even-numbered years. Each Councilor District which has more than one Councilor shall be represented by its senior Councilor in point of service on the Committee. The Committee shall consider and recommend to the House of Delegates, prior to the election of officers, in its final session, its nominees for the office of President Elect, Vice President, Treasurer and the AMA Delegate and Alternate; and the Committee shall submit at least two nominees for all officers except President Elect. Nominations also may be made from the floor of the House for the above respective offices.

Following is a list of the names of physicians who will serve on the 1986 Committee on Nominations: Drs. John B. Markey of Charleston, Junior Councilor-at-Large, Chairman; District II—George A. Curry of Morgantown; District IV—Larry C. Rogers of Petersburg; District VI—James L. Bryant of Clarksburg; District VIII—Thomas La Mar Stahly of Summersville; District X—George W. Hogshead of Nitro; District XII—Diane E. Shafer of Williamson; and District XIV—Stephen L. Sebert of Fairlea.

The WVSMA Committee on Nominations will hold a 5 P. M. meeting on Friday, August 15, in the Washington Room at The Greenbrier in White Sulphur Springs.

Pat and her husband, a general surgeon, have two sons and two grandchildren.

Mrs. Morgan a Nurse

Mrs. Morgan, a registered nurse, is Past President of both her county and state auxiliaries. She is active in many fields including hospital auxiliaries, child care institutions and her church, Central Baptist Church.

Her husband is a gynecologist, and they are the parents of a son and daughter.

More than 200 spouses of physicians are expected to attend the Auxiliary's business sessions, over which Jeanny Kalaycioglu (Mrs. M. V.) of Shinnston, President, will preside.

An invitation has been extended to Auxiliary members to attend the first session of the State Medical Association's House of Delegates Wednesday, August 13, at 2:45 P. M. in Governor's Hall. Dr. John J. Coury of Port Huron, Ohio, AMA President, will be the principal speaker.

Auxiliary members also were invited to attend formal opening ceremonies of the Association's 119th Annual Meeting beginning at 9 A. M. Thursday, also in Governor's Hall. Robert L. Volle, Ph.D., will deliver the keynote Thomas L. Harris Address. Doctor Volle is Associate Dean for Research and Basic Sciences, University of Kentucky, Lexington. To assume new duties as President of the National Board of Medical Examiners in Philadelphia September 1, his subject will be "The National Board, Medical Education and Licensure."

Dr. David Z. Morgan of Morgantown, WVSMA President, will be recognized for brief remarks prior to Mrs. Durham's address Thursday morning.

Friday Schedule Includes Dance

During the second session Friday morning, Mrs. Durham will install Linda Turner (Mrs. Charles E.) of Huntington as President, and other new officers. Mrs. Turner, whose husband will be installed as WVSMA President Saturday, will give her inaugural address.

A dance to the music of the Bo Thorpe Band, which also played during the 1985 State Medical Association convention in Charleston, will be held from 9 to 12 Friday evening in Chesapeake Hall. Invitations at no charge will be available at the Auxiliary registration desk.

For other scheduled activities, see the official Auxiliary program in this issue of *The Journal*.

REGISTRATION

Wednesday Morning
Physicians —
Greenbrier Registration Lobby
8:00 A.M.-12 Noon

Exhibitors — Exhibit Center
8:00 A.M.-4:30 P.M.

Wednesday Afternoon
Exhibit Center —
12:30-4:30 P.M.

Thursday
Exhibit Center —
8:00 A.M.-4:30 P.M.

Friday
Exhibit Center —
8:00 A.M.-4:30 P.M.

Saturday Morning
Exhibit Center —
8:30 A.M.-12:30 P.M.

Saturday Afternoon
Physicians —
Greenbrier Registration Lobby
1:00-3:00 P.M.

CNA SEMINAR
Registration
Exhibit Center
1:30 P.M.
THURSDAY AND FRIDAY

EXHIBIT HOURS

Wednesday
August 13 — 2:00 P.M.-4:30 P.M.

Thursday
August 14 — 8:00 A.M.-4:30 P.M.

Friday
August 15 — 8:00 A.M.-4:30 P.M.

Saturday
August 16—8:30 A.M.-12:30 P.M.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

Aug. 1-2, Charleston, Advanced Trauma Life Support

*Sept. 6, Morgantown, Common Spine Problems

Sept. 10, Charleston, Home Health Seminar

Sept. 13, Charleston, Searching Medline: A Guide for the Health Professional

*Sept. 19-20, Morgantown, Ob-Gyn Teaching Days

Sept. 24, Charleston, Teleconference: "Who Lives, Who Dies, Who Decides?"

Oct. 1, Charleston, Faculty Research Day

*Oct. 10-11, Morgantown, Internal Medicine Update '86

Oct. 14, Charleston, The Role of Autologous Bone Marrow Transplantation for Solid Tumors

Oct. 18, Morgantown, 7th Annual Ophthalmology Conference

Oct. 18-19, Charleston, Advanced Cardiac Life Support Provider Course

*Oct. 23-24, Morgantown, 12th Hal Wanger Family Practice Conference

Oct. 24, Charleston, Emergency Care Seminar

*Oct. 25, Morgantown, Pediatric Octoberfest

*Nov. 1, Morgantown, Cardiology Update

Nov. 5, Charleston, Childhood Obesity

*Nov. 22, Morgantown, Magnetic Resonance Imaging

Dec. 11, Charleston, Newer Treatments for Lung Cancer

* in conjunction with WVU football games

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — Aug. (vacation)

Sept. 18, "Colon Carcinoma," Steven Jubelirer, M. D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A.M. — August (vacation)

Sept. 10, "Outpatient Chemotherapy," Arvind Shah, M. D.

Oct. 8, "Pediatric Cardiology" (speaker to be announced)

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — Aug. 6, "Dealing With Anxiety of COPD Patients," Veena Bhanot, M. D.

Sept. 3, "Workup of Bleeding Disorders & Related Cancer Problems," Steven Jubelirer, M. D.

Greenbrier, Library, Greenbrier Clinic, 3rd Tuesday, 4-5 P. M. — Aug. 19, "Newer Imaging Techniques" (speaker to be announced)

Sept. 16, "Occupational Lung Diseases," Dominic Gaziano, M. D.

Madison, Boone Memorial Hospital, 2nd Tuesday, 7-9 P. M. — Aug. (vacation)

Sept. 7, "Diet & Cancer," Sue Warren, M. D.

Oct. 14, "Update Respiratory Therapy," Mahendra Patel, M. D.

Nov. 11, "Acute Medical Emergencies & Transport," John Walker, R.N., & Nancy Crittenden, R.N.

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — Aug. (vacation)

Sept. 23, "Colonoscopy," Brittain McJunkin, M. D.

Oct. 28, "Update Cardiovascular Surgery" (speaker to be announced)

Summersville, Summersville Memorial Hospital, 1st Tuesday, 6:30-8:30 P. M. — Aug. (vacation)

Sept. 2, "Evaluation of Adrenal Function," Richard Kleinmann, M. D.

Oct. 7, "Diagnosis & Management of the Stroke Patient," Curtis Withrow, M. D.,

Nov. 4, "Pulmonary Function Testing," Bippin Avashia, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — Aug. (vacation)

Sept. 17, "Reading Chest X-Rays," Bippin Avashia, M. D.

Oct. 15, "ENT," Nabil Aragheb, M. D.

Nov. 19, "Update Hematological Malignancies" (speaker to be announced)

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — Aug. (vacation)

Sept. 24, "Update Dermatology," Robert Point, M. D.

Oct. 22, "Update Emergency Medicine," Edward Wright, M. D.

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — Aug. (vacation)

Sept. 4, "Leukemia & Blood Products," Victorino Teleron, M. D.

Review A Book

The following books have been received by the Headquarters Office of the State Medical Association. Medical readers interested in reviewing any of these volumes should address their requests to Editor, *The West Virginia Medical Journal*, Post Office Box 4106, Charleston 25364. We'll be happy to send the books to you, and you may keep them for your personal libraries after submitting to *The Journal* a review for publication.

The Physician and the Hopelessly Ill Patient: Legal, Medical and Ethical Guidelines (Society for the Right to Die). $5. 250 West 57th Street, New York, NY 10107. 1985.

Caring, by Annette Swackhamer, R.N., and Ralph W. Moss. $15.95. Doubleday and Company, Inc., 245 Park Avenue, New York, NY 10167. 1986.

Existence, Culture, and Psychotherapy, by Clinton R. Meek, Ph.D. $19.95. Philosophical Library, Inc., 200 West 57th Street, New York, NY 10019. 1986.

Cardiac Arrest: A True Account of Stolen Lives, by Sarah Spinks. $17.95. Doubleday and Company, Inc., 2145 Park Avenue, New York, NY 10167. 1986.

Convention Timetable

The first general scientific session will follow 9 A.M. opening exercises Thursday, August 14. General sessions also will be held at 9:30 A.M. Friday and Saturday.

The first session of the House of Delegates will be on Wednesday afternoon, August 13, beginning at 2:45. The second session will be on Saturday afternoon beginning at 2:30.

Disability Evaluation Handbook Available

The 1986 edition of the *Handbook for Physicians* is available upon request from the Disability Determination Service of the West Virginia Division of Vocational Rehabilitation, it was announced by A. J. Allen, Administrator. The new edition which, like the 1979 edition it supersedes, explains the medical basis for Social Security disability decisions.

The Handbook is intended to help physicians and other health professionals understand the criteria governing Social Security disability insurance coverage for employees and their dependents as well as the Supplemental Security Income criteria.

The general information section discusses questions often raised by physicians about the Social Security definition of disability: "The inability to engage in *any* substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or has lasted or can be expected to last for a continuous period of not less than 12 months . . ." The symptoms, signs and laboratory findings are discussed along with medical equivalency, fees, vocational factors and responses to requests for medical evidence of record.

The program information section describes who can get disability payments under Social Security coverage (Title II of the Social Security Act) and under Supplemental Security Income (Title XVI of the Social Security Act). Those provisions which encourage a return to employment are also described.

The listing of impairment section uses the same 13 body systems to organize the categories of impairments for each system. The key concepts used in evaluating impairments and the medical evidence needed precedes the criteria in each body system description. One example of a change from the previous Handbook concerns arterial blood gas specifications. Another change is the complete rewriting of the section of mental disorders, a task accomplished with the assistance of a panel of 52 representatives from a cross section of mental health treatment and advocacy groups.

To obtain a copy of the new Handbook, write: Medical Relations, Disability Determination Service, 1206 Quarrier Street, Charleston, West Virginia 25301. Telephone 343-5055 locally or, in West Virginia, 1-800-344-5033.

An Invitation

to

Physicians, Spouses and Guests

You're Cordially Invited to Attend

the

Bo Thorpe Dance with After-Dinner Drinks

9:00-12:00 PM

Friday, August 15, 1986

Chesapeake Hall

The Greenbrier

Hosts

WEST VIRGINIA STATE MEDICAL ASSOCIATION AUXILIARY

CHAPMAN PRINTING COMPANY OF CHARLESTON

(Note: Invitations will be available at both the Association and Auxiliary Registration Desks. There is no charge for the dance and drinks; however, an invitation will be needed for admittance).

Registration Fee For Annual Meeting

There will be a registration fee of $25 for all WVSMA members attending the 1986 Annual Meeting August 12-17 at the Greenbrier in White Sulphur Springs. The registration fee, as noted previously, was established this year by Council to help offset convention expenses. There will be no fee for residents, students and nurses.

A fee of $100 will be charged non-members and out-of-state physicians.

State Medical Association Lists Names of New Members

The following is a list of new members, by component societies, of the West Virginia State Medical Association elected from January 1 through April 30, 1986:

Cabell

Alfred Baldera Huntington	EM
Hoyt J. Burdick Huntington	I
Omar A. El Bash Huntington	U-S
Sonya Gladshtein Huntington	Anes
Joseph F. Hanna Huntington	C
Theodore P. Haddox Huntington	ObG
David Hinchman Huntington	
Vernon Humbert Huntington	C
Adel Ibraham Huntington	GS
Roger G. Kimber, Jr. Huntington	FP
Mysore Narayan Huntington	I-PUD
Edwin R. Porres Huntington	I
David Reinecke Huntington	Oph
Linda Savory Huntington	FP

Brian M. Uniacke ..... FP
Ft. Gay

Matthew C. Wilson ..... A
Huntington

Central WV

Keith Burkhart ..... EM
Buckhannon

Gary G. Gammon I
Buckhannon

Jill H. Hendra, D.O.
Mt. Nebo

Glen R. Snider, Jr. I
Buckhannon

Neal David Tishman, D.O.
Rock Cave

Jeanie Wiest ..... Pd
Buckhannon

Eastern Panhandle

Jose B. Abella ..... ObG
Martinsburg

J. Michael Waldeck ..... Pd
Martinsburg

Fayette

Fred L. Akerberg ..... GP
Charlton Heights

J. Repaire ..... GP
Montgomery

Mark D. White ..... FP
Oak Hill

Greenbrier Valley

Stephen Thilen ..... Anes
Ronceverte

George Robert Thompson I
White Sulphur Springs

Hancock

Mehr Sultan
Weirton

Harrison

Joseph DiBlasio
Clarksburg

Peter L. Duffy I
Clarksburg

Donald R. Frey ..... FP
Clarksburg

Seetha Ginjupalli ..... I-CD
Clarksburg

Constance E. Godenick ..... FP
West Union

Mark T. Godenick ..... FP
West Union

Michael Rabanal ..... S
Clarksburg

Doyle R. Sickles ..... OrS
Clarksburg

Jefferson

Radha Nathan ..... Pd
Ranson

Konrad Charles Nau ..... FP
Harpers Ferry

Kanawha

David Abramowitz ..... R
Charleston

Pedro S. Baula ..... GP
Scott Depot

Kanoj Biswas ..... ObG
Charleston

Spencer L. Bivens, Jr. I
Charleston

Abel P. Borromeo ..... Path-GP
South Charleston

James W. Caudill ..... Oph
Charleston

Thomas A. Dickie ..... Anes
Charleston

M. A. Ghannam ..... OTO
South Charleston

James Philip Hall ..... FP
Clendenin

Michael G. Holland ..... EM
Ripley

S. R. Jawalekar ..... Anes
Charleston

Wallace C. Johnson ..... I-GE
Charleston

Arundhati V. Kshirsagar ..... ObG
Dunbar

Manuel D. Lagman ..... FP
Charleston

David P. Lee ..... I-HEM
Charleston

Firasat S. Malik ..... CD-TS
Charleston

Brittain McJunkin ..... I-GE
Charleston

Ivan Mejia ..... Anes
Charleston

Prasadarao B. Mukkamala ..... PMR
Charleston

Mickey Jon Neal ..... Anes
Charleston

Alan Richard Nichols ..... R
Charleston

Alfred K. Pfister I
Charleston

Joseph Plymale ..... U-S
Charleston

(Continued on Next Page)

The West Virginia University School of Medicine's student scholarship fund received a bequest of nearly $300,000 from the estate of Hazel Lynch Coffindaffer of Lost Creek, Harrison County, who died in 1981, the widow of Dr. C. Clyde Coffindaffer, who died in 1961. Mrs. Coffindaffer made the bequest through the Auxiliary to the Harrison County Medical Society and the American Medical Association's Education and Research Foundation (AMA-ERF). During the formal presentation of the gift in May in Clarksburg (above), WVSMA President David Z. Morgan, M. D., recognizes three members of the Harrison Auxiliary who were instrumental in obtaining the funds (from left), Denny Fischer, Mary Harrison and Margaret Gilman. The bequest of $580,000 was divided equally between WVU and the Medical College of Virginia where Dr. Coffindaffer received his M. D. degree. (See story in the June issue of The Journal.)

S. Roshanna Rothberg
Charleston

John H. Schmidt, III ..... NS
Charleston

Kenneth A. Starling ..... Pd-HEM
Charleston

Donald F. Teter ..... FP
South Charleston

Herbert A. Tipler ..... Oph
South Charleston

Melchor F. Vidal ..... FP
Charleston

Sue C. Warren ..... I-FP
Charleston

Patrick C. Williams, Jr. ..... ObG
Charleston

Logan

Ulysses D. Agas ..... Path-GP
Logan

Alok Bhattacharyya ..... N
Logan

Oscar P. Carrillo ..... FP-Anes
Logan

Dorval P. Donahoe ..... FP
Stollings

S. M. Mamidi ..... I-CD
Logan

Ernesto C. Manuel ..... GP
Logan

Milagros Mercado ..... FP
Kermit

Henry Mueller ..... ObG
Man

Ramanathan Padmanaban ..... GS-OrS
Logan

B. P. Rao I
Whitman

Satishchandra N. Rao I
Chapmanville

Samuel Rojas ..... Pd-GP
Logan

Pimpa M. Suttiratana ..... ObG
Logan

Educardo S. Velasco ..... GP
Whitman

Rogelio Q. Veloso ..... FP
Logan

Marion

Patrick C. Bonasso ..... ObG
Fairmont

Joseph K. Lobl I
Fairmont

CME/Evaluation/Certification

REMEMBER . . . To insure documentation of your CME credits, please take a few minutes after each session to complete the evaluation form and return it to the WVSMA's Registration Desk; or, mail completed form to CME Office, WVU School of Medicine, 104 Basic Science Building, PO Box 6302, Morgantown, WV 26506. CME Staff at WVU will handle certification of CME credit to physicians for the 1986 Annual Meeting.

Marshall

Edwin Angulo ..... Anes
Glen Dale

Frank Domkoski
Glen Dale

Michael Ramsey ..... R
Glen Dale

Martin Scheinholtz ..... Anes
Glen Dale

Chandra S. Swamy ..... ObG
Glen Dale

Manuel A. Villaverde ..... Path
Glen Dale

Mason

Georgianna T. Burns ..... Pd
Pt. Pleasant

William C. Callihan, II ..... Pd
Pt. Pleasant

Mark C. Y. Cheng I
Pt. Pleasant

Jamshed R. Nuggud ..... P-GP
Gallipolis, OH

M. C. Shah I
Pt. Pleasant

Edward J. Sheridan, III ..... Oph
Pt. Pleasant

Skrikant K. Vaidya ..... U-S
Pt. Pleasant

McDowell

Regino L. Garcia ..... GP
Bradshaw

James Lewis I
Welch

Robert D. Piat ..... GS
Welch

Mercer

Afzal U. Ahmed ..... R
Princeton

Rasikbhai M. Bhagat ..... GP-EM
Bluefield

Ram P. Bhasin ..... S-EM
Bluefield

Larry V. Carson ..... S
Princeton

Enrico Cappiello ..... R
Spanishburg

Wallace W. Duncan ..... S
Bluefield

Stanley S. Hamaker ..... FP
Princeton

Ralph Haynes ..... Pd
Freeman

David Hopper
Princeton

Robert Jones ..... GS
Princeton

Carol Larson
Princeton

Mario S. Lucero ..... GP
Princeton

Naeem Pervaiz ..... U-S
Princeton

Don Weston ..... P
Princeton

Mingo

P. P. Zamora ..... GP
Williamson

Monongalia

Henry L. Abrons
Morgantown

Pamela S. Fawley ..... P-GP
Morgantown

Nabil M. Jabbour ..... Oph
Morgantown

Dale J. Luketich ..... FP
Blacksville

Gregg M. O'Malley
Morgantown

David M. Morgan ..... P
Morgantown

William H. Wanger ..... FP
Morgantown

Ohio

Felino V. Barnes ..... Pd
Wheeling

Bernard O. Garrett ..... R
Wheeling

Carl J. Kite ..... GS
Wheeling

Edward Y. Lai ..... R
Wheeling

Gary Loh ..... R
Wheeling

Fredeswinde Mejia ..... Pd
Wheeling

C. Pamela Parmar ..... FP
Wheeling

K. N. Reddy ..... GP
St. Clairsville, OH

Robert S. Robbins ..... Anes
Wheeling

Thomas Romano ..... RHU-I
Wheeling

Terry L. Stake ..... R
Wheeling

Bennett E. Werner I
Wheeling

Parkersburg

James M. Beane ..... FP
Parkersburg

Gloria Calderon ..... P
Parkersburg

Wayne B. Cayton, Jr. ..... EM
Parkersburg

W. Michael Hensley ..... R
Parkersburg

Brian Powderly ..... FP
Elizabeth

Jon Paul Tipton ..... A-PUD
Marietta, OH

Mary Anne Totten ..... I-END
Vienna

Srini Vasan ..... R
Parkersburg

Preston

Max Allen Harned ..... FP
Bruceton Mills

John J. Keefe ..... FP
Terra Alta

David Trenton, D.O. ..... Ob
Kingwood

Raleigh

Generoso B. Blando ..... EM
Beckley

Eipidio Pauig Carag ..... GP
Beckley

M. I. Dababnah ..... FP
Beckley

Surayia T. Hassan I
Beckley

Elias H. Isaac ..... GS
Beckley

Apolonio E. Lirio, Jr. ..... U-S
Crab Orchard

Mariza A. Lirio ..... PM
Crab Orchard

Govind S. Menawat ..... FP
Beckley

Meredith Rohani ..... GS
Beckley

R. Chamanlal Shah ..... P
Beckley

Rajnikant S. Shah ..... GS
Beckley

Rajindra Pratap Singh ..... S
Beckley

Michael J. Weisner ..... FP
Sprague

South Branch Valley

Bruce W. Leslie I
Petersburg

Colin Ramirly ..... Pd
Petersburg

Danine A. Rydland ..... ObG
Petersburg

Henry G. Taylor I
Franklin

Summers

I. Braxton Anderson ..... S
Hinton

Benjamin L. Plybon ..... S
Hinton

Steven I. Richman ..... FP
Hinton

Chandra P. Sharma ..... FP
Hinton

Don C. Wood, D.O. ..... FP
Alderson

Tygart's Valley

Daniel H. Stewart ..... GS
Elkins

Western

Carroll D. Christenson ..... FP
Spencer

Daniel Sumrock ..... FP
Spencer

Wetzel

Justo F. Cabral, Jr. ..... GP
Paden City

R. D. Morris, D.O.
New Martinsville

Wyoming

Lee B. Smith ..... S
Mullens

Resident Members

David R. Ayers
Huntington

David J. Brailer
Philadelphia, PA

Kyran Dowling
Morgantown

Richard Mark Hatfield
Berwyn, IL

Randall Hill
Charleston

Juan Mancillas
Charleston

Lee Ann Skaff
Morgantown

Student Members

Clark D. Adkins
MU, Huntington

Mark C. Bates
WVU, Charleston

Joseph Capito
MU, Huntington

Gregory A. Carico
MU, Huntington

Gregory D. Clarke
WVU, Morgantown

Karen E. Clark
MU, Huntington

Rodney Lee Curtis, II
WVU, Morgantown

Terry G. Daniel
WVU, Morgantown

Mark A. DeMoss
MU, Huntington

Debbie DiVenanzo
WVU, Follansbee

Michael G. Douglas
MU, Huntington

Charles B. Franz
WVU, Maysville

Charles Garretson
MU, Huntington

Michael W. Gibbs
MU, Huntington

Gregory L. Glass
MU, Huntington

William C. Hamilton
MU, Grove City, OH

Gaylen S. Johnson
WVU, Morgantown

Matt E. Kalaycioglu
WVU, Morgantown

Allen Lewis
MU, Charleston

Mary Ann Manakkil
MU, Huntington

Mark R. Mason
MU, Huntington

Thomas G. Mason, II
WVU, Morgantown

Anne Kathryn McBride
WVU, Morgantown

Stevan J. Mihoan
WVU, Vienna

Michael R. Ranger
WVU, Morgantown

Chris Patricoski
WVU, Morgantown

Walter E. Pofahl, II
WVU, Morgantown

Monica Richey
MU, Huntington

Val L. Richey
MU, Huntington

Rebecca Iris Sparks
WVU, Morgantown

Robert Starr
WVU, Morgantown

Sandra L. Whitney
WVU, Morgantown

1986 Roster Corrections

The following changes have been called to our attention and should be made in the 1986 Roster of Members under Officers of Component Societies:

Eastern Panhandle — President, Robert Straugh; Secretary, James D. Helsley; Jefferson County — Secretary, William Miller; Putnam County — President, Max A. Harned; Raleigh County — President, Ramon Jereza; Summers County — Secretary, J. Braxton Anderson; Western — President, James Kessel; Wyoming County — President, Lee B. Smith, and Secretary, Manuel C. Barit.

The following physician has notified us of a correction in his specialty listing as it appears in the 1986 Roster:

Kanawha — John W. Byrd, RHU.

The following physicians have called to our attention errors in the spelling of their names as they appear in the 1986 Roster.

Cabell County	Rajendra K. Jain
Eastern Panhandle	Ramanujam Eyyunni
Fayette County	Ravindranath Bhirud

(*Note:* Effective May, 1986, the names of physicians elected to membership in the WVSMA are appearing on a monthly basis in **The Journal** — see July issue).

Sports Events Planned Again For Convention

State doctors and auxilians again plan to work annual golf and tennis competition into the business and scientific program schedule for WVSMA's Annual Meeting at the Greenbrier August 12-17.

Dr. Estelito B. Santos of Huntington is the defending champion in the medical golf tournament. The women's golf tournament in 1985 was cancelled because of rain.

Dr. Lionel J. Nair of Charleston was the winner last year in the tennis competition, in round-robin type of play. The women's tennis doubles winners were Pacita Salon (Mrs. Ely) of Beckley and Sandra De Ocampo (Mrs. Roberto) of Charleston.

New Officers

Newly elected officers of The West Virginia Academy of Otolaryngology include Drs. R. Austin Wallace, Charleston, President; Ronald L. Wilkinson, Charleston, Vice-President, and James L. Bryant, Clarksburg, Secretary-Treasurer.

Kidney Transplants To Resume, Charleston-Kanawha Post Filled

Two appointments of interest in the state recently were announced: Dr. Steven Lachance will join the WVU School of Medicine faculty this fall, paving the way for the School to reinstate its kidney transplant program for the first time in years; and Dr. Donald M. Rosenberg, a former public health official with the U. S. Army in Texas, began work in July as the new Director of the Charleston-Kanawha Health Department.

"Doctor Lachance comes from one of the top kidney programs in the country," said Dr. Donald Lamm. Doctor Lamm, Chairman of Urology at WVU, headed the four-member search committee which spent well over a year looking for a kidney transplant specialist.

"It's been six or seven years since we had a transplant program," Doctor Lamm said, adding that the transplant program should begin sometime after Doctor Lachance's arrival September 15.

Located in Oregon

Doctor Lachance, 32, currently practices surgery at Oregon Health Sciences University in Portland. A graduate of Northwestern University Medical School in Chicago, Doctor Lachance did his intern and residency work at OHSU. He is the author of several medical publications and has been involved in research to improve kidney preservation for transplants.

Like Doctor Lamm, Doctor Lachance is a urologist. But Doctor Lamm said administrative duties have precluded him from reinstating the transplant program until another qualified urologist was brought in.

Doctor Lachance's primary duties will be performing kidney transplants at WVU Hospital. But the surgeon also will be involved in kidney transplant research and teaching medical classes at WVU, Doctor Lamm said.

Meanwhile, Charleston Area Medical Center said it hopes to launch its own kidney transplant program sometime next summer. Gary Chernenko, Director of Community Affairs for CAMC, said the Hospital is conducting a search for a kidney transplant surgeon.

Replaces Doctor Seekford

Doctor Rosenberg, 49, replaces Dr. Page Seekford, who retired earlier this year after heading the Department for more than 20 years.

Dr. I. A. Wiles, a former health official from Morgantown who was Doctor Rosenberg's first military commander, urged Doctor Rosenberg to apply for the job. "He was instrumental in convincing me to come," Doctor Rosenberg said.

Doctor Wiles praised Doctor Rosenberg's work. "He has the type of training that I think we need in West Virginia. He is specially certified in preventive medicine," Doctor Wiles said.

Doctor Rosenberg has an undergraduate degree from Columbia University in New York City, a medical degree from the University of Lausanne in Switzerland, and a master's degree in public health from Johns Hopkins University in Baltimore.

He taught preventive medicine and public health to incoming physicians and administrators who received training through the Army, and ran public health programs at all the Army's military installations. Recently, he worked on a study of the Army's outpatient care system.

Fertility Society To Issue Guidelines

Results of the deliberations of the American Fertility Society's Ethics Committee will be released September 8. The revolutionary new technologies in human reproduction developed over the past few years have raised a number of legal, ethical, moral and social questions which have gone unanswered in this country, the Society said.

Medical Meetings

Aug. 7-10—International Doctors in Alcoholics Anonymous, San Diego.

Aug. 12-17—119th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

Aug. 14-15—WVSMA Loss Control Seminar, White Sulphur Springs.

Sept. 12-18—Am. College of Radiology, Baltimore.

Sept. 15-17—Am. College of Nutrition, Washington, DC.

Sept. 15-18—Am. College of Emergency Physicians, Atlanta.

Sept. 20—WVSMA Loss Control Seminar, Parkersburg.

Sept. 22-26—Am. College of Chest Physicians, San Francisco.

Sept. 25-28—Am. Society of Internal Medicine, Seattle.

Sept. 27-Oct. 2—Am. Academy of Family Physicians, Washington, DC.

Oct. 5-8—Am. Neurological Assoc., Boston.

Oct. 8-10—Traumatic Head Injury Conference, Braintree, Mass.

Oct. 14-18—Medical Group Management Association, Loss Angeles.

Oct. 15-17—Am. College of Gastroenterology, Atlanta.

Oct. 18—WVSMA Loss Control Seminar, Beckley.

Oct. 19-24—Am. College of Surgeons, New Orleans.

Oct. 19-24—Am. Academy of Physical Medicine & Rehabilitation, Baltimore.

Nov. 2-7—Am. Society of Therapeutic Radiology & Oncology, Los Angeles.

Nov. 8—WVSMA Loss Control Seminar, Huntington.

Nov. 9-13—Am. Academy of Ophthalmology, New Orleans.

Nov. 12-16—Am. Medical Women's Assoc., St. Louis.

Convention Program

119th ANNUAL MEETING
of the
West Virginia State Medical Association
THE GREENBRIER, WHITE SULPHUR SPRINGS
August 12-17, 1986

PROGRAM COMMITTEE

John W. Traubert, M.D.
Morgantown
Chairman

Marshall J. Carper, M.D.
South Charleston

Richard E. Kleinmann, M.D.
Charleston

Jose I. Ricard, M.D.
Huntington

John A. Rizzo, M.D.
Fairmont

William N. Walker, Jr., M.D.
Clarksburg

WEDNESDAY MORNING
August 13
(Eastern Daylight Time)

8:00-12:00 Noon — Physician Registration, Registration Lobby.

8:00-4:30 — Registration, Exhibitors, Exhibit Center.

9:30—Pre-Convention Meeting of the Council. Carl J. Roncaglione, M.D., *Presiding* (Hayes Room).

WEDNESDAY AFTERNOON

12:30-4:30—Physician Registration, Exhibit Center.

2:45—First Session of the House of Delegates. David Z. Morgan, M.D., *Presiding* (Governor's Hall).

Invocation—Joseph T. Skaggs, M.D., Charleston.

Address: John J. Coury, Jr., M.D., President, American Medical Association. Subject: "Medicine: Today and Tomorrow."

Presentation of AMA-ERF Grants to the West Virginia and Marshall University Schools of Medicine.

Business Meeting.

6:30—President's Reception. Parker/Hunter of Clarksburg, *host* (Taft Room).

THURSDAY MORNING
August 14

Breakfast Meeting

7:30—Component Society Presidents. Charles E. Turner, M.D., President Elect, West Virginia State Medical Association, *Presiding* (Chesapeake Bay).

Opening Exercises
(Governor's Hall, Exhibit Center)

8:00-4:30—Registration, Exhibit Center.

9:00—Call to Order—David Z. Morgan, M.D., President, West Virginia State Medical Association.

Invocation—Joe N. Jarrett, M.D., Oak Hill.

Address of Welcome — David Z. Morgan, M.D.

Introduction of 1986 Program Committee.

"The Thomas L. Harris Address" Robert L. Volle, Ph.D., Associate Dean for Research and Basic Sciences, University of Kentucky, Lexington. Subject: "The National Board, Medical Education and Licensure."

Note: As of September 1, 1986, Doctor Volle will assume his new duties as President of the National Board of Medical Examiners, Philadelphia.

First General Session

John W. Traubert, M.D., *Moderator*

9:45—Richard E. Kleinmann, M.D., Associate Professor of Medicine, WVU School of Medicine, Charleston Division. Subject: "Approach to the Solitary Thyroid Nodule."

10:30—Coffee Break to Visit Exhibits.

11:00—Panayotis Ignatiadis, M.D., Clinical Assistant Professor of Neurological Surgery, Marshall University School of Medicine, Huntington. Subject: "Headaches: A Daily Enigma."

11:45—Frederick C. Whittier, M.D., Professor of Medicine, Northeastern Ohio Universities College of Medicine; and Deputy Program Director, Affiliated Hospitals at Canton, Canton, OH. Subject: "Geriatric Hypertension."

12:30—Recess for Lunch.

THURSDAY AFTERNOON

12:30—Luncheon Honoring Past Presidents of the West Virginia State Medical Association. Carl J. Roncaglione, M.D., *Presiding* (Chesapeake Bay).

1:00—Public Health — Local Health Officers Conference. David K. Heydinger, M.D., Director, West Virginia State Health Department, *Presiding* (Jackson Room).

"Loss Control Seminar"
(Mountaineer Room, Exhibit Center)

Michael J. Lewis, M.D., *Moderator*

1:30—Registration.

2:00—Michael J. Lewis, M.D., Associate Professor, Department of Family Practice, WVU School of Medicine, Morgantown. Subject: "Pretest, Logistics and Panel Introductions."

2:15—Don Sensabaugh, Jr., J.D., Member, Law Firm of Kay, Casto and Chaney, Charleston. Subject: "Legal Aspects of West Virginia Statutes, Negligence, Informed Consent and Medical Records."

3:15—Coffee Break.

3:30—Joseph L. Robertson, Service Office Manager, CNA, Charleston. Subject: "Responsibilities and Activities of Insurors, How and Why to Cooperate, Claim Reporting and Deciding to Settle or Go to Court."

4:30—Doctor Lewis—Office Staff Giving Telephone Advice Contrary to Physician Desires.

5:00—Closing Remarks and Adjournment.

2:00—Executive Council, WVU School of Medicine Alumni Association. John N. Hutzler, Jr., M.D., Chair, *Presiding* (Wilson Room).

2:30—WESPAC. Mrs. Esther (Harry S.) Weeks and David Z. Morgan, M.D., Co-Chairpersons, *Presiding* (West Virginia Room).

4:30—Resolutions Committee. Cordell A. de la Pena, M.D., *Presiding* (Pierce Room).

THURSDAY EVENING

6:30—Cocktail Party. West Virginia University Alumni Association. Richard A. DeVaul, M.D., and Douglas E. McKinney, M.D., co-*hosts* (Exhibit Center).

6:30—Cocktail Party. West Virginia Chapter, Medical College of Virginia Alumni Association. George Naymick, M.D., *in charge* (Exhibit Center).

6:30—Cocktail Party for Exhibitors. West Virginia State Medical Association, *host* (Exhibit Center).

FRIDAY MORNING
August 15

Breakfast Meetings

7:00—Section on Internal Medicine. Maurice A. Mufson, M.D., *Presiding* (Eisenhower Parlor B).

Guest Speaker: John A. Thomas, Ph.D., Vice President, Corporate Research, Travenol Laboratories, Round Lake, IL. Subject: "New Drugs Through Recombinant DNA."

7:00—Section on Surgery. Bill M. Atkinson, M.D., *Presiding* (Lee Room).

Guest Speaker: M. D. Avington, M.D., Cardiologist, Parkersburg. Subject: "Preoperative Cardiac Consultation."

8:00-4:30—Registration, Exhibit Center.

Section Meeting

8:30—Section on Dermatology. William A. Welton, M.D., *Presiding* (Wilson Room).

Case Presentations.

Second General Session
(Governor's Hall, Exhibit Center)

Jack H. Baur, M.D., *Moderator*

9:30—Thomas E. Finucane, M.D., Assistant Professor of Medicine, Division of Comprehensive Medicine, WVU School of Medicine, Morgantown. Subject: "Polypharmacy and the Elderly."

10:15—Coffee Break to Visit Exhibits.

10:45—Mabel M. Stevenson, M.D., Director, Tri-State Red Cross Blood Services; and Clinical Professor of Pathology, Marshall University School of Medicine, Huntington. Subject: "The Judicious Use of Blood and Blood Products."

11:30—Irma H. Ullrich, M.D., Professor of Medicine, Section of Endocrinology/Metabolism, WVU School of Medicine, Morgantown. Subject: "Non-Diabetic Endocrine Emergencies."

12:15—Recess for Lunch.

FRIDAY AFTERNOON

12:30—Cancer Committee. Business Meeting. Alvin L. Watne, M.D., *Presiding* (Eisenhower Parlor C).

12:30—Publication Committee. Stephen D. Ward, M.D., *Presiding* (Jackson Room).

12:30—West Virginia Medical Institute, Inc., Board of Trustees Meeting. Harry S. Weeks, Jr., M.D., *Presiding* (Tyler Room).

1:00—West Virginia Chapter, American College of Emergency Physicians. Ernest J. Bonitatibus, M.D., *Presiding* (Pierce Room).

Guest Speaker: Frederick C. Blum, M.D., Department of Emergency Medicine, WVU Medical Center, Morgantown. Subject: "Pediatric Emergencies."

"Loss Control Seminar"
(Continued)
(Mountaineer Room, Exhibit Center)

Michael J. Lewis, M.D., *Moderator*

1:30—Registration.

2:00—Cursory Practice (Inadequate History and Exam Fail to Detect Potential for Drug Interaction with Lethal Results)

2:30—Altered Records (Physician "Corrections" in Medical Records Totally Discredit Testimony and Record Keeping)

3:00—Coffee Break.

3:15—Lack of Team Coordination (Failure to Coordinate Physician Treatments and "Loose Talk" at Nursing Station Provoke Suit)

4:00—Questions and Answers to Panel Members.

4:30—Completion of Evaluation Sheet.

5:00—Closing Remarks and Adjournment.

Note: Attendees (limited to 50 advance registrations) *must* be present at all six (6) hours of Loss Control Seminar instruction and *must* complete pre-test/evaluation to receive credit. An appropriate personalized certificate will be awarded. In addition, those who complete the course will receive a five (5) per cent reduction in malpractice insurance premiums, authorized by CNA annually for each of three years.

2:00—Section on Orthopedic Surgery. Stephen I. Lester, M.D., *Presiding* (West Virginia Room).

Guest Speaker: Robert Neil Hensinger, M.D., Professor, Department of Surgery, Section of Orthopedic Surgery, University of Michigan, Ann Arbor. Subject: "Spondylolysis and Spondylolisthesis in Children and Adolescents."

2:00—West Virginia State Neurosurgical Society. Hossein Sakhai, M.D., *Presiding* (Buchanan Room).

Business Meeting.

2:00—West Virginia Chapter, American Academy of Pediatrics. Robert A. Lewine, M.D., *Presiding* (Fillmore Room).

Guest Speaker: Philip J. Porter, M.D., Associate Professor of Pediatrics, Harvard Medical School; and Director, Healthy Children Program, Harvard University, Division of Health Policy Research and Education, Boston. Subject: "Healthy Children Project."

2:00—West Virginia District Branch, American Psychiatric Association. Kenneth M. Fink, M.D., *Presiding* (Lee Room).

Guest Speaker: Steven S. Sharfstein, M.D., Deputy Medical Director, American Psychiatric Association, Washington, DC. Subject: "Economic Future for Psychiatric Care."

Business Meeting.

3:00—Executive Committee, Preferred Medical Care Network of West Virginia, Inc. Thomas P. Rogers, *Presiding* (Grant Room).

5:00—Committee on Nominations. John B. Markey, M.D., *Presiding* (Washington Room).

FRIDAY EVENING

9:00—Dance. Music by Bo Thorpe and His Orchestra, Rocky Mount, North Carolina. West Virginia State Medical Association and Auxiliary, *hosts* (Chesapeake Hall).

After-Dinner Drinks. Chapman Printing Company, Charleston, *host.*

SATURDAY MORNING
August 16

Breakfast Meetings

7:30—West Virginia Gastrointestinal Society. Thomas W. Kiernan, M.D., *Presiding* (Wilson Room).

Guest Speaker: Robert R. Schade, M.D., Associate Professor of Medicine, University of Pittsburgh School of Medicine, Pittsburgh. Subject: "Update on Liver Transplantation."

7:30—West Virginia Radiological Society. Leonidas Castro, M.D., *Presiding* (Tyler Room).

Guest Speaker: William L. Crawford, M.D., Program Director, Youngstown Integrated Diagnostic Radiology Residency; and Associate Professor of Radiology, Northeastern Ohio Universities College of Medicine, Youngstown, OH. Subject: "Controversies In Mammography."

8:00—West Virginia Urological Society. Rafael E. Molina, M.D., *Presiding* (Jackson Room).

ogy, Department of Surgery, Division of Urology, Duke University Medical Center, Durham, NC. Subject: "Medical and Surgical Management of Kidney Stone Disease."

8:30-12:30—Registration. Exhibit Center.

Third General Session
(Governor's Hall, Exhibit Center)

Richard A. DeVaul, M.D., *Moderator*

9:30—C. Lawrence Kien, M.D., Ph.D., C. E. Compton Professor of Nutrition; Chief, Section of Clinical Nutrition, Department of Medicine; and Professor, Department of Pediatrics and Biochemistry, WVU School of Medicine, Morgantown. Subject: "Facts and Fads in Nutrition."

10:15—Coffee Break to Visit Exhibits.

10:45—Michael J. Lewis, M.D., Associate Professor, Department of Family Practice, WVU School of Medicine, Morgantown. Subject: "Strict Diabetes Control: Who? How? Why?"

11:30—Paul D. Saville, M.D., Clinical Professor of Medicine, WVU School of Medicine, Charleston Division. Subject: "Clinical Clues in Arthritis."

12:15—Recess for Lunch.

SATURDAY AFTERNOON

1:00-3:00 — Registration. Registration Lobby.

2:30—Second and Final Session of the House of Delegates. David Z. Morgan, M.D., *Presiding* (Chesapeake Hall).

Invocation — Greenbrier Almond, M.D., Buckhannon.

Presidential Address: David Z. Morgan, M.D., President, West Virginia State Medical Association.

Presentation of New Officers of Auxiliary to the West Virginia State Medical Association.

Presentation of Honor Guests.

Business Meeting.

Election of Officers.

Installation of Charles E. Turner, M.D., Huntington, as President of the West Virginia State Medical Association.

SATURDAY EVENING

7:00—Reception, Honoring Newly Installed Officers of the Association and Auxiliary (Chesapeake Terrace). McDonough Caperton Association Group, *host.*

A Word Of Thanks

The 1986 Program Committee, and the officers and members of the West Virginia State Medical Association, wish to acknowledge with sincere thanks grants received from the following firms to help support the Scientific Program for this year's 119th Annual Meeting.

ELI LILLY AND COMPANY
and DISTA PRODUCTS COMPANY
Indianapolis, IN

CIBA PHARMACEUTICAL COMPANY
Summit, NJ

(The firms listed above are those which had allocated funds to the Scientific Program as this issue of **The Journal** went to press. Additional contributors will be listed in the Official Program to be distributed at the Greenbrier in White Sulphur Springs).

Delegates And Alternates

BOONE (2) — Delegates, Ron Stollings, Madison; and Alberto Fernandez, Chapmanville. Alternates, Manuel Uy, Madison; and Probhond Chinuntdet, Madison.

BROOKE (2) — Delegates, W. T. Booher, Jr., Wellsburg; and Ralph McGraw, Follansbee. Alternates, Michael P. Giannamore, Follansbee; and Richard Bombach, Wheeling.

CABELL (14) — Delegates, Polley Cunningham, William Cunningham, William Echols, Robert Marshall, Bruce Martin, W. W. Mills, Rafael Molina, Rocco Morabito, Maurice Mufson, H. S. Mullens, K. V. Raman, Jose Ricard, Estelito B. Santos, Larry C. Smith and Mabel Stevenson, Huntington. Alternates, Douglas Glover, Tara Sharma and Gary Tolley, Huntington.

CENTRAL WEST VIRGINIA (4) — Delegates, Greenbrier Almond, Buckhannon; Alfred Magee, Summersville; and Rigoberto Ramirez and Joseph B. Reed, Buckhannon.

EASTERN PANHANDLE (5) — Delegates, L. Walter Fix, James Helsley, Harvey D. Reisenweber, Francisco D. Sabodo, Jr., and Robert S. Strauch, Martinsburg. Alternate, Rudolf Lemperg, Martinsburg.

FAYETTE (3) — Delegates, Joe N. Jarrett and Serafino S. Maducdoc, Jr., Oak Hill; and Rolando C. Ramirez, Montgomery. Alternates, Fred L. Akerberg, Charlton Heights; and Amor H. Ramirez and Adin L. Timbayan, Montgomery.

GREENBRIER VALLEY (4) — Delegates, Steve Sebert, Fairlea; Malcolm Harris, Union; Robert A. Shirey, Lewisburg; and Charles Weinstein, Ronceverte. Alternates, William Dukart and Robert Modlin, Ronceverte.

HANCOCK (3) — Delegates, Jasbir S. Makar and Antonio S. Licata, Weirton.

HARRISON (7) — Delegates, John Bellotte, T. H. Chang, Erlinda de la Pena, James Genin, and Robert D. Hess, Clarksburg; M. V. Kalaycioglu, Shinnston; and Jamie Lazaro, Clarksburg. Alternates, James Bryant, Cordell A. de la Pena, Donald Frey, Catalino B. Mendoza and Carlos Naranjo, Clarksburg.

JEFFERSON (2) — Delegates, S. K. Menon and William S. Miller, Ranson.

KANAWHA (22) — Delegates, Alfonso Y. Amores, Constantino Y. Amores, B. H. Avashia, Pracash C. Bangani, Jean P. Cavender, Jerill D. Cavender, Robert J. Clubb, Glen Crotty, Jr., Donald E. Farmer, Fred F. Holt, Jamal H. Khan, John B. Markey, William Sale, Frederick Thomas Sporck, Joseph T. Skaggs, Charles C. Weise and Ronald L. Wilkinson, Charleston. Alternates, Richard Capito, South Charleston; Stephen Paul Cassis, John T. Chambers and Angel M. Cinco, Charleston; William D. Crigger, South Charleston; David Gray, Carl Hall, Echols Hansbarger, Jr., and Sherman E. Hatfield, Charleston; George Hogshead, Nitro; James Lane, Robert Leadbetter, Rogelio Lim, Donn Livingstone, Jimmie Lee Mangus, Eric P. Mantz, William C Morgan, Jr., Robert Point, William C. Revercomb, Jr., Charleston; Joseph A. Smith, Dunbar; and Samuel Strickland and Shirley Willis Trammell, Charleston.

LOGAN (4) — Delegates, Subhash Bhanot, Mt. Gay; and Raymond Rushden and Rodney L. Stephens, Logan. Alternates, Ray Kessel and Ernesto Manuel, Logan.

MARION (5) — Delegates, Paul S. Gotses and William L. Mossburg, Fairmont. Alternates, Paul E. Frye and Stanard L. Swihart, Fairmont.

MARSHALL (3) — Delegates, Kenneth Allen and Carlos Jimenez, Glen Dale.

MASON (2) — Delegates, Aarom Boonsue and Richard Slack, Point Pleasant. Alternates, Montrie Chaksupa and Mel P. Simon, Pt. Pleasant.

McDOWELL (3) — Delegates, Arthur Allen Carr and Barbara Fenton, Welch; and Richard Gale, Gary. Alternates, John Cook, and Louis Vega, Welch.

MERCER (7) — Delegates, David F. Bell, Jr., and Surrinder K. Chopra, Bluefield; Frank Holroyd, Princeton; John J. Mahood and James Paine, Bluefield; Lee Smith, Princeton; and Edward Spencer, Bluefield.

MINGO (3) — Delegates, Pastor C. Gomez, Diane E. Shafer and Liberty R. Tablante, Williamson. Alternates, Edward B. Headley, Delbarton; and Manolo Tampoya, Williamson.

MONONGALIA (17) — Delegates, J. David Blaha, Donald C. Carter, Thomas S. Clark, Richard A. DeVaul, Richard D. Gais, David F. Graf, Bette G. Hinton, John Jones, Roger King, Michael J. Lewis, David Z. Morgan, William A. Neal, Ralph W. Ryan, Wade B. Stoughton, John W. Traubert, Thomas Vargish and George W. Weinstein, Morgantown. Alternate, Howard H. Kaufman, Morgantown.

OHIO (11) — Delegates, George E. Bontos, James L. Comerci, James C. Durig, Carl J. Kite, Derrick L. Latos, D. Verne McConnell, Milton E. Nugent, M. D. Reiter, Stephen D. Ward, Harry S. Weeks, Jr., and Hossein Yassini-Fard, Wheeling. Alternates, Leonidas Castro, Larry A. Dodd, Rizal V. Pangilinan, Thomas Ramano, William D. Strauch and Howard L. Shackelford, Jr., Wheeling.

PARKERSBURG ACADEMY (9) — Delegates, M. D. Avington, John Beane, Paul Burke, Jr., W. E. Gilmore, Francis C. Huber, Jr., Ghassan Khalil, and Mike Morehead, Parkersburg; and David Avery and Stephen Mosberg, Vienna. Alternates, B. M. Atkinson, M. B. Louden, Jr., Humberto Escandon, Frank Schwartz and R. C. Sims, Parkersburg.

POTOMAC VALLEY (3) — Delegates, James C. Bosley and Inder Khurana, Keyser; and S. Phillip Razzook, Romney.

PRESTON (2) — Delegate, John J. Keefe, Terra Alta. Alternates, Timothy C. Miller and David Trenton, Kingwood.

PUTNAM (2) — Delegates, Randall W. Peterson and Robert E. Turner, Hurricane. Alternate, Sam Henson, Hurricane.

RALEIGH (8) — Delegates, William C. Covey, Jr., Jerome Jereza, Charles Merritt, Robert P. Pulliam, Richard D. Richmond, Richard Thompson and Nancy R. Webb, Beckley. Alternates, C. Richard Daniel, Prospero B. Gogo, Carl S. Larson, Worthy W. McKinney, William D. McLean, Vinayak Purandare and Norman W. Taylor, Beckley.

SOUTH BRANCH VALLEY (2) — Delegates, Colin Ramirez and Karl J. Reckenthaler, Petersburg. Alternates, Donald Hindman, Moorefield; and Larry C. Rogers, Petersburg.

SUMMERS (2) — (Did not submit names)

TYGART'S VALLEY (5) — Delegates, Melanio D. Acosta, Jr., Parsons; Jerome C. Arnett, Jr., Elkins; Halberto G. Cruz, Philippi; and James B. Magee, Ramon A. Morales and Michael M. Stump, Elkins. Alternates, Gene W. Harlow, Grafton; Karl J. Myers, Jr., and Elizabeth Myers, Philippi; and Joseph A. Tavolacci, Elkins.

WESTERN (3) — Delegates, Richard Brown, Spencer; and Ali H. Morad, Ripley.

WETZEL (2) — Delegate, Donald Blum, New Martinsville. Alternate, K. M. Chengappa, New Martinsville.

WYOMING (2) — Delegates, Manuel C. Barit and Lee B. Smith, Mullens.

Official Program – Auxiliary

To The West Virginia State Medical Association — 62nd Annual Meeting. The Greenbrier — White Sulphur Springs — August 13-16, 1986.

WEDNESDAY AFTERNOON
August 13

1:00-5:00—Registration, Lower Lobby

2:45—First Session of the House of Delegates, West Virginia State Medical Association (Governor's Hall)

Address by John J. Coury, Jr., M.D., President, American Medical Association

Recognition of AMA-ERF Grants to the West Virginia University and Marshall University Schools of Medicine

4:00—Pre-Convention Board Meeting, Mrs. M. V. Kalaycioglu, President, presiding (Fillmore-VanBuren Rooms)

6:30—WVSMA President's Reception, Taft Room (Auxilians invited).

THURSDAY MORNING
August 14

9:00-4:00—Registration, Lower Lobby

9:30—Formal Opening of the Convention, Mrs. M. V. Kalaycioglu, President, presiding (Fillmore-VanBuren Rooms).

Invocation, Pledge to Flag and Pledge of Loyalty.

In Memoriam — Mrs. Wilson P. Smith.

Introduction of Honored Guests.

Presentation of David Z. Morgan, M.D., President, West Virginia State Medical Association.

Introduction of Convention Chairman — Mrs. Logan W. Hovis.

Roll Call of Delegates — Mrs. Edward Spencer, Secretary.

Declaration of a Quorum — Mrs. J. L. Mangus, Parliamentarian.

Keynote Address — Mrs. Mylie E. Durham, Jr., President, American Medical Association Auxiliary.

Credentials and Registration — Mrs. Wilson P. Smith.

Convention Rules of Order — Mrs. J. L. Mangus.

Report of the 1985 Convention Reading Committee — Mrs. T. Keith Edwards.

Treasurer's Report — Mrs. Harvey Reisenweber.

Recommendations from the Pre-Convention Board Meeting.

New Business.

Election of the 1987 Nominating Committee.

Reports of Officers and Standing Committee Chairmen (These will not be read, but are published in the Annual Report Book).

Presentation of Regional Directors:
- Northern—Mrs. John Bellotte.
- Southern—Mrs. E. L. Gage.
- Eastern—Mrs. Robert Strauch.
- Western—Mrs. Willard F. Daniels, Jr.
- Central—Mrs. Douglas Curnutte.

Announcements.

Recess.

THURSDAY AFTERNOON

2:00-4:00—Guest Speaker, Forrest J. Bowman, Professor of Law, West Virginia University, "What Every Doctor's Wife Should Know About Her Husband's Affairs" (Fillmore-VanBuren Rooms).

FRIDAY MORNING
August 15

9:00-4:00—Registration, Exhibit Hall.

8:00—Past Presidents' Breakfast — Mrs. Harry S. Weeks, Jr., (Hayes Room).

9:30—Second General Session (Fillmore-VanBuren Rooms).

Introduction of Honored Guests.

Roll Call of Delegates — Mrs. Edward Spencer.

Declaration of a Quorum — Mrs. J. L. Mangus.

Presentation of AMA-ERF Awards — Mrs. Grady McRae and Mrs. David Bell, Co-Chairmen. Recognition of AMA-ERF Grants to the West Virginia and Marshall University Schools of Medicine.

Address — Mrs. Frank E. Morgan, President, Southern Medical Association Auxiliary.

Convention Announcements — Mrs. Logan W. Hovis.

Reports of Convention Committees:
- Credentials and Registration — Mrs. Wilson P. Smith.
- Press and Publicity — Mrs. Robert D. Hess.

Unfinished Business.

Report of Tellers.

Report of the 1986 Nominating Committee — Mrs. Harry S. Weeks, Jr.

Election of Officers.

Installation of Officers — Mrs. Mylie E. Durham, Jr.

Presentation of President's Pin and Gavel — Mrs. M. V. Kalaycioglu.

Presentation of Past President's Pin — Mrs. Harry S. Weeks, Jr.

Inaugural Address — Mrs. Charles E. Turner.

Announcements.

Adjournment.

FRIDAY AFTERNOON

2:30—Bridge (Trellis Lobby) Cabell County, Mrs. M. Bruce Martin, Chairman.

Golf, Harrison County, Mrs. John McCuskey, Chairman.

Tennis, Raleigh County, Mrs. Ely Salon, Chairman.

(Times for golf and tennis to be announced)

FRIDAY EVENING

9:00-12:00—Dance to the music of the Bo Thorpe Band (Chesapeake Hall).

Invitations are available at the Registration Desk. After-dinner drinks, Chapman Printing, Charleston, Host.

SATURDAY MORNING
August 16

10:00—Post-Convention Board Meeting — Mrs. Charles E. Turner, President, presiding (Fillmore-VanBuren Rooms).

SATURDAY AFTERNOON

2:30—Second and Final Session of the House of Delegates of the West Virginia State Medical Association (Chesapeake Hall).

Presidential Address — David Z. Morgan, M.D.

Installation of Charles E. Turner, M.D., as 1986-87 President of the West Virginia State Medical Association.

(Auxiliary members are invited and urged to attend.)

SATURDAY EVENING

6:30-7:30—Cocktail Party and Reception Honoring the Officers of the West Virginia State Medical Association and its Auxiliary (Chesapeake Hall Terrace)

Scientific Exhibits

AMERICAN CANCER SOCIETY

"BREAST CANCER — EARLY DETECTION." The American Cancer Society will have a display on early detection of breast cancer. There will be publications directed to the health professionals as well as literature for the general public. These pamphlets on Breast Self-Exam, mammography guidelines, cancer facts, and resources for the cancer patients can be used in physician office/hospital waiting rooms.

Shirley Barber

AMERICAN LUNG ASSOCIATION OF WEST VIRGINIA

The American Lung Association of West Virginia is a not-for-profit health agency that provides information and educational programs on respiratory disease. Programs provided deal with occupational disease, spirometry training, air pollution, smoking cessation (at the workplace or in the community), anti-smoking school health education, nonsmokers' rights, adult lung disease (breathing rehabilitation for COPD), and pediatric lung disease (asthma). Staff and volunteers are eager to provide programs and information. The medical arm of the ALA of WV, the West Virginia Thoracic Society, offers a yearly scientific session to medical professionals on the topics of research, detection, treatment, and prevention of lung disease.

AMERICAN RED CROSS BLOOD SERVICES TRI-STATE REGION

Exhibit will feature overview of the regional blood program, as well as the blood products, medical and technical support services that are available to physicians in the region through the Tri-State Regional Blood Center.

Mabel M. Stevenson, M. D., Director.

DISABILITY DETERMINATION SERVICE OF THE WEST VIRGINIA DIVISION OF VOCATIONAL REHABILITATION

"REVISED CATEGORICAL LISTING OF IMPAIRMENTS." The latest changes in the Categorical Listing of Impairments will be displayed and distributed. The new brown covered 1986 edition will replace the 1979 yellow handbook previously distributed.

David H. Cleland, Medical Relations Officer.

FAMILY MEDICINE FOUNDATION OF WEST VIRGINIA

"FUND RAISER — HOMEMADE QUILT." The Foundation will have on display a homemade quilt, which will be used as a fund raiser. This quilt was made by Virginia Schiefer of Sutton, WV. Chances will be $10 each and tax deductible. Representatives will be available to discuss items of interest regarding the Foundation, their goals and future plans.

Robert D. Hess, M. D., President; Thomas P. Long, M. D., Trustee, and Chris Ferrell.

MARSHALL UNIVERSITY SCHOOL OF MEDICINE OFFICE OF CONTINUING MEDICAL EDUCATION

A portion of the CME Program at Marshall University School of Medicine will be displayed by VCR and Monitor.

Representatives: Ernest W. Chick, M.D., and David Bailey.

MARSHALL UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF FAMILY AND COMMUNITY HEALTH

"LESSONS FROM SPORTS MEDICINE." The role of the primary care physician in the delivery of Sports Medicine related patient services is expanding, especially for the rural-based Family Practitioner. The Department of Family and Community Health has incorporated a longitudinal experience in Sports Medicine with emphasis on a second year residency rotation in addition to providing a senior medical student elective for interested students.

James Kyle, M. D., Coordinator of Sports Medicine.

MARSHALL UNIVERSITY SCHOOL OF MEDICINE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY

"MEDICAL STUDENT RESEARCH IN THE DEPARTMENT OF OBSTETRICS AND GYNECOLOGY." The research efforts of four medical students from the Marshall University School of Medicine directed by faculty of the Department of Obstetrics and Gynecology will be summarized in this exhibit. James Tomblin's work involves the development of a new technique for measuring the phosphate content of amniotic fluid and correlating the results with the antibacterial activity of the amniotic fluid. Dr. Tomblin received his medical degree in May and will be entering Obstetrics Residency. The work of Kelly Kearfott has involved the teratogenic potential of nitrate in drinking water supplies in West Virginia. She has done animal studies which indicate that a high level of nitrate in drinking water is associated with premature births in mice. The nitrate levels throughout the state are reported as well. Elaine Young, M. D. and Mark Studeny, M. D. (class of 1986) collaborrated in a study of the prevalence of urinary tract infections among prenatal women attending a rural southern WV clinic. They have documented the consequences of deficiencies in urine screening among this population and have investigated the cost-benefit relationship of prenatal urine culture.

Douglas D. Glover, M. D., Associate Professor.

MONONGALIA GENERAL HOSPITAL and SECTION OF INFECTIOUS DISEASE WVU SCHOOL OF MEDICINE Morgantown, WV Home Nutritional Services (Educational Grant)

A home intravenous antimicrobial program that was implemented at both a private community hospital and a university hospital with a wide rural referral base is described. This is a three year update, ending June 30, 1986, during which patients have been screened and selected for home I.V. antimicrobial management at Monongalia General Hospital and West Virginia University Hospital. Hospital pharmacies and two home health-care companies are utilized as central points for coordinating preparation and distribution of drugs and providing skilled nursing services. The on-going project has continued to demonstrate the efficacy, safety, psychological benefits, and health dollar savings of this treatment.

R. Brooks Gainer II, M.D., Clinical Associate Professor of Medicine, Section of Infectious Disease, WVU School of Medicine, Morgantown; and Suzanne Gainer, M.T. (A.S.C.P.).

THE MEDICAL ACCESS AND REFERRAL SYSTEM SCHOOL OF MEDICINE, WV UNIVERSITY

"MARS." The Medical Access and Referral System (MARS), a toll-free access to West Virginia University Medical Center physicians and facilities.

Alita Humphrey, MARS Program Manager, and Michael Lewis, M. D., Medical Coordinator.

WEST VIRGINIA DEPARTMENT OF HEALTH

"AIDS IN WEST VIRGINIA." Three-Panel Poster — Panel 1: Epidemiology of AIDS in West Virginia; Panel 2: HTLV-III Counseling & Test Centers, and Panel 3: AIDS Program Development.

John W. Brough, Dr. P.H., Director, Preventative Health Services; Robert Anderson, Acting Director, Health Education, and David K. Heydinger, M. D., State Health Director.

WEST VIRGINIA DEPARTMENT OF HEALTH

Office of Emergency Medical Services

Information on West Virginia's statewide Emergency Medical Service System including communications, ambulance services, trauma center designation, training and administrative roles.

Representatives: James Dennewitz, Executive Director (SEMS); Mike Wuchner, Executive Director (ReMS); and Carla Zando, Administrative Aide (OEMS).

WEST VIRGINIA DEPARTMENT OF HEALTH/WIC PROGRAM

"WIC PROGRAM — SPECIAL SUPPLEMENTAL FOOD PROGRAM FOR WOMEN, INFANTS, and CHILDREN." The Special Supplemental Food Program for Women, Infants and Children of the West Virginia Department of Health provides nutritious foods to supplement the diet of approximately 28,000 West Virginians who are "high risk" for nutrition-related health problems. Supplemental foods can help correct serious nutritional problems such as inadequate growth or anemia. WIC provides a unique combination of food, nutrition education, and health care which further helps prevent the early development or progression of health problems in pregnant, postpartum, and breastfeeding women, infants, and children up to 5 years of age.

Frances C. Wilkinson, M. S., R. D., Nutrition Education Coordinator; Helen Hardman, Nutritionist, and Louise Knight, Nutritionist.

WEST VIRGINIA DIVISION OF VOCATIONAL REHABILITATION

"PRODUCTIVITY THROUGH DISABILITY MANAGEMENT." The exhibit will highlight the role of vocational rehabilitation in disability management via prevention, early detection, rehabilitation and restoration, and services for injured workers.

Patty Pearson, Public Information Officer.

WEST VIRGINIA POISON CENTER

"GET TO KNOW YOUR POISON CENTER." The West Virginia Poison Center serves as the official state designated Poison Center to the citizens and health care professionals of West Virginia.

Terri Defazio, RN, Assistant Director.

WEST VIRGINIA UNIVERSITY HOSPITALS, INC.

"CHILDREN'S HOSPITAL OF WVU HOSPITALS, INC." Children's Hospital of West Virginia University Hospitals, Inc. will comprise the entire sixth floor of the new $87 million Ruby Memorial Hospital now under construction. Children's Hospital will have 82 beds and 15 newborn basinettes. The 82 beds will include 24 general pediatric beds, 8 adolescent, 10 pediatric intensive care, 20 neonatal intensive care and 20 obstetric beds. The labor and delivery rooms also will be on the floor.

David J. Fine, President, WVU Hospitals, Inc.; Andrew A. Lasser, Dr. P. H., Administrator, Children's Hospital, and Virginia Nugent, Administrative Assistant, Patient Relations.

WEST VIRGINIA UNIVERSITY HOSPITALS, INC.

"RUBY MEMORIAL HOSPITAL OF WVU HOSPITALS, INC." West Virginia University Hospitals, Inc., is constructing an $87-million replacement facility with the capability of delivering up-to-date technological care. Twelve operating rooms will be equipped with the most sophisticated monitors and video communications capability. Intensive care for medical surgical patients will be provided in 30 adult, 20 neonatal and 10 pediatric intensive care beds. The most advanced radiographic techniques, including MRI, will be made available to patients either during their stay or as out patients.

David J. Fine, President, WVU Hospitals, Inc.; Andrew A. Lasser, Dr. P. H., Administrator, Children's Hospital, and Virginia Nugent, Administrative Assistant, Patient Relations.

Commercial Exhibits

WV SAFETY BELT COALITION
Charleston, WV
Booth 1

Representatives of West Virginia Safety Belt Coalition wish to extend a cordial invitation to physicians to visit Booth No. 1. Brochures, bumper stickers and key chains with "Buckle Up" messages will be on display.

Representatives: Carolyn Perry, Thomas Vargish, M.D., and Ruth Lemon.

SEECO Systems/PMS
Information Systems
Charleston, WV
Booth 2

Participants in the IBM Marketing Assistance Program will occupy Booth No. 2. They would like to extend a cordial welcome to physicians to come by and discuss with them the IBM System 36, IBM PC, IBM Hospital Information System/36 and MED/36.

Representatives: Jim Seering, SEECO Systems, and Mike Smith, PMS Information Systems.

WVU SCHOOL OF MEDICINE
Department of Continuing
Medical Education
Morgantown, WV
Booth 3

Representatives cordially invite you to stop by and visit Booth No. 3. The exhibit will present preliminary results of a Continuing Medical Education Needs Assessment Survey conducted by the CME Office of the WVU School of Medicine, Charleston Area Medical Center and Marshall University School of Medicine. The project was accomplished with the support of the WV State Medical Association and WV Chapter of the American Academy of Family Physicians.

Representatives: Robert E. Kristofco, Sharon A. Hall and Ernest Chick, M.D.

SANDOZ PHARMACEUTICALS CORPORATION
East Hanover, NJ
Booth 6

Representative: Steve McCord.

GEIGY PHARMACEUTICALS
Summit, NJ
Booth 7

You are cordially invited to visit the Geigy Pharmaceuticals exhibit, Booth No. 7, and meet our representative who will welcome the opportunity to discuss our featured products — Lopressor and Brethine.

Representative: Jimmie J. McGlosson.

PREFERRED MEDICAL CARE NETWORK OF WV, INC.
Charleston, WV
Booth 8

Please stop by and visit with representatives of the first statewide PPO in the nation. They will be happy to discuss the State Medical Association's innovative approach to providing accessible, quality health care to West Virginians.

Representatives: Woody Burnette and Bob Stevens.

UNITED HOSPITAL CENTER
Clarksburg, WV
Booth 9

Representatives cordially invite attendees to visit Booth No. 9 where they will have displayed materials on new services which have recently been added to the United Hospital Center. They also will have information available concerning the heart catherization and cancer care program at UHC.

Representatives: Mark Clement, Kevin Z. Smith and Robert Hess, M.D.

LEDERLE LABORATORIES
Wayne, NJ
Booth 12

Representatives of Lederle Labs will be present at Booth No. 12 to discuss its products with you. Products featured will be Maxzide, Pipracil, Minocin and Asendin.

Representatives: Arthur M. Shumsky, Frank Coffman, II, and Jack Dove.

DORSEY PHARMACEUTICALS
East Hanover, NJ
Booth 13

We invite you to stop by Booth No. 13 where Dorsey Pharmaceuticals' representatives will be happy to discuss its products, among which will be featured Hydergine, Restoril and Mellaril.

SUPPORT SYSTEMS INTERNATIONAL
Medical Services, Inc.
Charleston, SC
Booth 14

SSI Medical Services, Inc. will occupy Booth No. 14. Its representatives invite you to stop by and let them discuss with you the Clinitron Therapy Unit which will be on display.

Representatives: Donna L. Moore, R.N., and Paula Linehan, R.N.

FOSTER MEDICAL CORPORATION
Home Health Care Division
Charleston, WV
Booth 15

Please stop by and visit with representatives at Booth No. 15. Foster Medical Corporation will feature home ventilators and have information on respiratory equipment, Medicare guidelines for rent/purchase and oxygen guideline coverage, and DME.

Representatives: David E. Cummons, Sam May, Dara Peery, Barb Sambs, Jack McVey and Denise Brink.

A.H. ROBINS COMPANY
Richmond, VA
Booth 16

You're cordially invited to visit the A. H. Robins exhibit, Booth No. 16, and meet our representatives who will welcome the opportunity to discuss our products among which Reglan and Micro-K will be featured.

Representative: Gus N. Addington.

POST+, INC.
Wheeling and Charleston, WV
Booth 17

Representatives for POST+, Inc. will be at Booth No. 17 to greet you and will be happy to discuss the following products: POST+ Medical/Dental System on IBM A.T. and POST+ Medical/Dental System on IBM System 36 (Desktop).

Representatives: Gregory A. Pittner, Lawrence E. Constantin, George Krupica, Katrina Tallarico and Nancy Lofton.

SEARLE PHARMACEUTICAL, INC.
Chicago, IL
Booth 18

The following products will be featured at Booth No. 18 and representatives of Searle Pharmaceuticals, Inc. invite you to visit and discuss the following: CALAN®, DEMULEN 1/35™, NORPACE® CR, NITRODISC®, THEO-24® and FLAGYL I.V.™

Representatives: Mike Kincaid and Tim Smith.

RITE AID HOME HEALTH CARE
Charleston and Morgantown, WV

Booth 19

Representatives of Rite Aid Home Health Care will occupy Booth No. 19. You're cordially invited to stop by and visit with them. They would like to discuss with you some of their products, including home ventilator, power wheelchair, oxygen, ostomy products and diabetic supplies.

Representatives: Steve McDermitt and Joyce Zinn.

ATHENA CONSULTING & TRAINING
Dunbar, WV

Booth 20

Athena Consulting & Training will occupy Booth No. 20 where representatives will be happy to have you visit and talk with them. Featured will be: Medicalis — Practice Management Software, Medicalis Radiology, and Medicalis Anesthesiology. They will have information available on desk top printshop laser printers, Cordata computers, and Word Perfect word processing.

Representatives: David H. Miller, Kim McLaughlin, Maryrita Miller, and Larry McLaughlin.

UNITED STATES AIR FORCE HEALTH PROFESSIONALS
Richmond, VA

Booth 21

Representatives of the USAF Health Professionals will be on hand in Booth No. 21 with informational literature on the USAF. You're invited to stop by and visit with them.

Representatives: MSGT Edward Blevins and Capt. George L. Berberich.

AMES DIVISION, MILES LABORATORIES, INC.
Elkhart, IN

Booth 22

You're cordially invited to stop by Booth No. 22 where representatives from Ames Division, Miles Laboratories, Inc. will feature Diagnostic Instrumentation.

Representatives: Joe Dawson and Al Chesson.

THE UPJOHN COMPANY
Cincinnati, OH

Booth 23

The Upjohn Company invites you to visit Booth No. 23 where its representatives will be prepared to discuss the following products with you: XANAX®, HALCION® and CLEOCIN®.

E. R. SQUIBB & SONS
Princeton, NJ

Booth 24

CAPOTEN, CORGARD, INSULIN and AZACTAM will be the products featured at Booth No. 24 where representatives of E. R. Squibb & Sons will be on hand to answer any of your questions.

Representatives: J. Oliverio, T. Foster, S. Broughton, W. Williams, J. Spencer and P. Craven.

GLAXO INC.
Research Triangle Park, NC

Booth 25

Glaxo Inc. will occupy Booth No. 25 where the following products will be featured: Zantac, Ventolin, Zinacef and Fortaz. Representatives invite you to stop by and discuss products of interest to you.

Representatives: Greg Wing, Mike Jarrett and Stu Sergent.

LINDE HOMECARE MEDICAL SYSTEMS, INC.
Charleston, WV

Booth 26

You're invited to visit Booth No. 26 which will be occupied by Linde Homecare Medical Systems, Inc. They're featuring a Linde Mark 4 Oxygen Concentrator, a Linde Oxygen Walker System and Home Medical Equipment.

Representatives: Diane Gillespie and Stephen Gnall.

McDONOUGH CAPERTON ASSOCIATION GROUP
Charleston, WV

Booth 27

Representatives of McDonough Caperton Association Group invite you to stop by Booth No. 27 and discuss your current professional liability insurance coverage, or inquire about future coverage.

Representatives: William G. MacLean and Thomas L. Auman.

WYETH LABORATORIES
Philadelphia, PA

Booth 28

Wyeth Laboratories' representatives invite you to visit them in Booth No. 28 where they will be happy to discuss the following products with you: Wytensin, Sectral and Triphasil. Also, subject to its availability, Orudis will be featured.

Representatives: Art E. Wright, Ted J. Marchal and Steve Sweeney.

CURTIS AND ASSOCIATES, LTD.
Charleston, WV

Booth 29

Representatives: James G. Curtis, Teresa Curtis and Kay Holcomb.

NUCLEAR MEDICINE SERVICES, INC.
Charleston, WV

Booth 30

Representatives in Booth No. 30, Nuclear Medicine Services, Inc., cordially invite you to visit them where RAST Testing For Allergy Determination will be domonstrated by the use of visual aids. A novel program of total allergy evaluation, with preprogrammed material for history, physical examination and consultation, will also be demonstrated by this methodology.

Representatives: Steven A. Artz, MD, Betsy Suter and Shannon Crago.

CHARLESTON AREA MEDICAL CENTER
Charleston, WV

Booth 31

Representatives invite you to stop by Booth No. 31 where they will be featuring informational material including copies of physician's referral brochure-photographs of CAMC.

Representatives: Joseph T. Skaggs, M.D., William B. Ferrell, Jr., and Gary C. Chernenko.

SMITH KLINE & FRENCH LABORATORIES
Philadelphia, PA

Booth 32

Smith Kline & French Laboratories invite you to visit Booth No. 32 where representatives will be on hand to answer your specific questions and to provide information on its products and service.

Representatives: Terry Taylor and Lola Burchett.

McDONOUGH CAPERTON SYSTEMS
Charleston, WV

Booth 33

We cordially invite you to visit the McDonough Caperton Systems exhibit in Booth No. 33 where displayed products of interest will include IBM Personal Computers, AT&T Personal Computers and the Physician's Office

Management System. Representatives will be on hand for demonstrations.

Representatives: Brad Layne and Harold Preston.

ABBOTT LABORATORIES
North Chicago, IL

Booth 34

Abbott Laboratories will occupy Booth No. 34 featuring Tranxen®, E.E.S.®, and K-TAB®. Representatives invite you to visit with them and discuss their products.

Representatives: Kim Elswick and Roy Leighton.

SOUTHERN MEDICAL ASSOCIATION
Birmingham, AL

Booths 35 & 36

SMA will have informational displays concerning available products and services. They invite you to stop by for a visit at Booths 35 & 36.

Representatives: Robert Mosca, Barbara Bedford and Sally Lindsey.

RORER-USV LABORATORIES
Ft. Washington, PA

Booth 37

Representatives: Ralph Erb, Chris Ward and Earl Lawson.

WINTHROP-BREON LABORATORIES, INC.
New York, NY

Booth 38

Please stop by and visit Booth No. 38 which will be occupied by Winthrop-Breon Labs, Inc. Its representatives invite you to discuss with them their featured products — Tornalate, Danocrine and Inocor.

Representative: John Mamula.

OHIO VALLEY MEDICAL CENTER, INC. REHABILITATION CENTER AT WOODSDALE PETERSON HOSPITAL
Wheeling, WV

Booth 39

You're invited to visit Booth No. 39 where representatives of the OVMC Rehabilitation Center at Woodsdale, Peterson Hospital of Wheeling will have on display pictures of typical rehabilitation scenes and a distribution of its rehab brochures. Representatives want to present to the medical community an overview of the physical rehabilitation services offered by OVMC, including information concerning an automobile which is equipped to train or retrain drivers who have been afflicted with an illness or injury.

Representatives: M. D. Reiter, M.D.; David Liebeskind, M.D.; Debbie Sauder, and Anne Mullaney.

1986 Annual Meeting Drawings For Door Prizes

Several beautiful and useful door prizes have been contributed for give-away during the 1986 Annual Meeting at the Greenbrier in White Sulphur Springs August 12-17.

Physicians will receive a coupon book (courtesy Expert Letter Service in Charleston) upon registration at the Association's Registration Desk. Each time a physician visits an exhibit in the Exhibit Center, a coupon *must* be signed by a representative in attendance at the exhibit booth. The coupons will be collected by an Association staff person from exhibitors and deposited in a box at the Association registration desk for drawing during each of the three morning coffee breaks on Thursday, Friday and Saturday during the Annual Meeting. A physician *must*, of course, be registered at the meeting; but, does not necessarily need to be present at the time of the drawing in order to receive a door prize.

The winner of the GRAND PRIZE, a Winter Weekend for two at The Greenbrier, will be announced at the Saturday evening Reception. The name of the Grand Prize recipient will be drawn from the box which will contain coupons collected over the three-day period.

Exhibitors Door Prize

There also will be a drawing for exhibitors in attendance at the meeting. Because firms send representatives who rotate time spent at the booths, the person to receive the exhibitor's door prize does not necessarily need to be present for the drawing. The drawing for the exhibitor's door prize will be held during the Saturday morning coffee break, and the name will be drawn from registration cards completed and left at the Association's registration desk.

Auxiliary Door Prize

Door prizes for Auxiliary members in attendance at the meeting will be taken from names appearing on registration cards furnished by Auxiliary registration staff. Drawings for these prizes will also be held during the three-day morning coffee breaks. The Auxilian does not need to be present to receive a door prize.

Insurance Committee

It became apparent to the Committee that serious re-examination of all of our present group insurance coverages be made in concert with our 40-year affiliation with McDonough Caperton Association Group. A bipartisan meeting was called, and the Committee met with McDonough Caperton's Senior Vice President, Mike Waldron, and Barbara Martin, Hazel Pactor, and Margaret Hartman on January 7, 1986. To convey to the WVSMA membership more succinctly the flavor of this meeting, the minutes are made a segment of our report:

"2. Presentation of McDonough Caperton Report. Mr. Waldron, with the help of others of his staff, presented the annual report on the status of the various group insurance programs in which WVSMA members participate. The report noted that 940 persons are currently insured with the Comprehensive Major Medical Program, 359 with the Disability Income Protection Program, 277 with the Term Life Program, 168 with AD & D Program, 157 with the Professional Office Overhead Program, and 100 with the Hospital Indemnity Program.

"3. Proposed Changes & Rate Increase on Major Medical Plan. Mr. Waldron noted that, based on claims experience, increased utilization and general inflation, MONY is requesting a 23-per cent premium increase effective March 1, 1986. Before the insurance committee would agree to such an increase, Mr. Waldron indicated it should consider several items offered which could alter the impact of the rate increase. The five items presented and the Committee's actions are:

A. Limit coverage for private duty nursing to $100 per shift, 90 shifts per calendar year (currently no limitation). On motion after discussion the Committee unanimously accepted this new limitation.

B. Incorporate a $10,000 lifetime cap on confinement in a general hospital for mental or nervous conditions. After discussion and on motion the committee voted not to accept this proposal.

C. Adding a mandatory second surgical opinion benefit to certain elective procedures. MONY suggested 10 procedures which would require such mandatory second opinions including bunionectomy, cholecystectomy, hemorrhoidectomy, hip replacement, hysterectomy, inguinal hernia repair, knee surgery, laminectomy and other spinal/vertebral surgery, mastectomy, and tonsillectomy and/or adenoidectomy. After much discussion, the committee voted to reject this measure.

D. Adding ambulatory surgical benefits; plan would pay 100 per cent R & C charges for ambulatory surgery with no deductible. Procedures covered are those normally performed in a hospital but instead are performed in ambulatory surgical centers or special out-patient facilities with no overnight care involved. MONY listed several examples of such procedures which the committee simply amended out of the provision in voting to accept this provision as part of the plan.

E. Using a three deductible maximum per family (currently using two). On motion, the committee voted to accept this provision.

Had all five of the recommendations been accepted, MONY would have reduced the 23-per cent rate hike request by small percentage factors. With the committee accepting only a couple of the cost-containing measures on behalf of our physicians insured under this group plan, we will await MONY's response as to what the final rate adjustment will be. MONY also suggested one enhancement of the program which would provide for well-baby care following birth when the infant remains in the hospital before going home with the mother. While the committe was sympathetic with the concept of insurance paying for the well-baby care portion of the hospital bill not presently covered under our existing contract, it was also concerned with the added premium cost burden. Insured members under age 40 would see their premium rise by $88 per year just to add this benefit. It was noted that by the time a couple had paid this premium for two years they would spend an amount equivalent perhaps to the cost they might incur if they had a baby in that time frame. And the payout of the premium would continue even though the couple is not having a baby annually or even every other year. The motion to reject the addition of this benefit was accepted and the benefit *will not* be added to the existing insurance package.

"4. Discussion of Marketing Plan. McDonough Caperton representatives indicated that the company as general manager or broker of the WVSMA group plans is undertaking a complete analysis of all of the Association's group plans to determine where we might be able to improve coverages, find more reasonable rates for the various kinds of insurance, etc. They expect to come back to WVSMA and this committee in March with a set of proposals to improve the entire insurance package. They also indicated that it is their desire to implement a marketing plan whereby they will be able to contact annually every member who has any of the group plans to make sure that coverages are adjusted up or down as changing personal situations, earnings and inflation dictate. The Chairman also suggested that our managing general agent prepare a brochure or booklet which outlines all of our insurance programs in a single piece and includes sample rates (where age dependent), options available, etc. Doctor Leckie noted that Southern Medical Association (of which some 600 WV physicians are members) has just such a brochure and offers many of the same insurance programs at more competitive rates.

"5. New Products Suggestions. At WVSMA request, McDonough Caperton outlined some possible new products which we might consider tying to membership in WVSMA. Three such products were offered:

A. A policy which offers 24-hour accidental death and dismemberment coverage if the insured member is in a motor vehicle either as a driver or passenger and is wearing an approved seat belt and/or seat belt/shoulder harness. In the event of the member's death under such circumstances, the estate would be paid the sum of $10,000. The cost of such a group policy would be $1.50 per member per year. Motion: That WVSMA accept this new insurance product and appropriate the money from Association funds to pay this premium. Adopted unanimously.

(Note: WVSMA Council in previous action has already approved this insurance idea in concept. Details will be worked out and members will be notified as to the effective date and details of the plan.)

B. Traditional AD & D coverage if loss occurs while member is traveling on a common carrier. Benefit: $10,000; Premium: $1.80 annually per member.

C. AD & D coverage for member if loss occurs while member is travelling on a scheduled air carrier. Benefit: $10,000; Premium: $1.40 annually per member.

B & C above were considered together and, after due discussion, a *motion to defer action* on adopting these two coverages was adopted.

D. Optional Dental Coverage. Citing member inquiries on the availability of dental insurance for WVSMA members, the general agent presented a dental option which could be offered in conjunction with the WVSMA-sponsored comprehensive Major Medical Plan. The committee suggested further study of the dental insurance issue and instructed McD-C to explore the cost-effectiveness of this program with other dental programs.

"6. Products Review Suggestions. In keeping with the request to review existing insurance products for currentness, cost and benefits, Mr. Waldron indicated that the carrier offering the present term life product has offered the following improvements in the insurance which take effect on April 1. A 25-per cent benefit bonus will be automatically added at no additional premium cost. Thus a $10,000 term life policy would automatically pay $12,500 as a death benefit even though the face value is listed at $10,000. The company is offering an opportunity to qualify for a significant discount based on non-smoking. Non-smokers presently insured (as well as new applicants) who answer a two-question application will see their premium decrease as of April 1. Finally, the company is eliminating the 35-per cent benefit reduction at age 65 and will continue benefits in full to the policy termination date of age 70.

"7. Professional Liability Review. Mr. Tom Auman of McDonough Caperton, appearing for Mr. William Maclean, gave a brief report on the status of professional liability policy renewals for 1986 and noted that nearly 1,000 doctors have already renewed or are in the process of renewing their coverage with CNA. The numbers of physicians resorting to other coverage appears to be minimal. Mr. Auman also indicated that perhaps as many as 50 of the newly accepted insureds are non-members who have agreed to join WVSMA to be eligible for insurance.

"8. Review of Other Programs. Chairman Leckie noted that he had had both conversation and correspondence with parties representing SMA insurance plans. The committee agreed to meet sometime in the next two months for the purpose of hearing a presentation of SMA plans and how a joint marketing plan might be implemented similar to the arrangement SMA has with the Louisiana State Medical Association."

As alluded to above in paragraph 7 of the minutes, the Southern Medical Association's Executive Vice President, William J. Ranieri, requested an opportunity to present a proposal to the Insurance Committee. The essence of the proposal is that SMA would be very interested in working with WVSMA in helping to establish an excellent member benefits program utilizing the SMA insurance program. To date, SMA has implemented their program with Louisiana State Medical Association and the Georgia Medical Association. On April 8, 1986, the Insurance Committee met with Mr. Ranieri to consider SMA's proposal and to evaluate the modifications of our present plan as proposed by McDonough Caperton.

Mr. Ranieri was well received, and he graciously and capably answered many questions for the Committee. His proposal, for the benefit of our entire membership, is essentially as follows:

Co-sponsoring between the SMA and WVSMA can be beneficial to both organizations. It would allow the SMA to expand its membership base (all WVSMA physicians who wish to participate in the SMA Insurance Program must first join SMA; dues are $75 annually), and at the same time, would allow the WVSMA to offer programs to its members which have proven to be beneficial to physicians.

The Insurance Program would enable the WVSMA members to participate in a comprehensive, in-depth program at the lowest cost possible. We suggest that the following items be discussed as we move further along:

1. Maintaining West Virginia State Medical Association's identity. We recommend specially printed pamphlets or brochures which would identify this as an insurance program sponsored by your society, "in cooperation with the Southern Medical Association."

2. Issuing the SMA insurance benefits to all current participants in the WVSMA insurance program. For increases in coverage or new participants, evidence of insurability will be required.

3. The WVSMA would receive an administrative fee of one half of one per cent of all new premiums (first year's premiums) collected

on WVSMA participants, and one fourth of one per cent of all current and renewal premiums.

4. Adopting a letter of agreement between West Virginia State Medical Association, Southern Medical Association and Connecticut General Life Insurance Company, the plan underwriter.

The WVSMA would be asked to perform the following functions:

1. The WVSMA would provide the SMA with a computer print-out of the WVSMA membership so that we could notify them of this new activity sanctioned by the WVSMA;

2. Notify the WVSMA membership of this new activity in a letter sent out over the WVSMA's President's signature; and

3. Notify the WVSMA membership of this co-sponsoring arrangement through publication in your journal and newsletter.

As of February 28, 1986, there are 622 members of Southern Medical in your state. Of this number, 190 are in the SMA insurance program, and 453 certificates.

DESCRIPTION OF PLAN INCLUDED IN THE SMA GROUP INSURANCE PROGRAM

A complete insurance program is available including:

1. LIFE INSURANCE
   (Up to $500,000)
2. ACCIDENTAL DEATH AND DISMEMBERMENT
   (Up to $150,000)
3. LONG-TERM DISABILITY INCOME
   (Up to $7,000 per month)
4. SHORT-TERM DISABILITY INCOME
   (Up to $2,000 per month)
5. MAJOR HOSPITAL INSURANCE
   (Up to $2,000 per person)
   80 per cent of hospital and nursing expenses payable after satisfying deductible.
6. MAJOR MEDICAL INSURANCE
   (Up to $2,000,000 per person)
   80 per cent of all eligible expenses up to $5,000, then 100 per cent of all eligible expenses
7. OFFICE OVERHEAD EXPENSE DISABILITY INSURANCE
   (Up to $10,000 per month)
8. SURVIVOR ANNUITY INCOME
   (Up to $1,000 per month)
   Up to $1,000 per month to your beneficiary
9. DAILY HOSPITAL INDEMNITY
   (Up to $100 per day)
   In addition to other coverages
10. UNIVERSAL LIFE INSURANCE
    Universal Life breaks the tradition of fixed premiums and fixed-benefit insurance. Policyholders can vary premium payments and type of coverage desired. Interest and cash value buildup is tax deferred.

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The SMA-IRA has the highest interest available in the industry. 100 per cent of your IRA payment earns interest — there are no fees or charges for setting up or maintaining your plan.

There are two types of Retirement Plans available:

Self-Employed Plans:
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Corporate Plans

Outstanding features of these plans include:

- Total Plan Administration and Accounting
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- All Reports and Filings for the IRS and Department of Labor are prepared for your signature
- Assignment of your own Personal Account Manager

In response to the Committee's recommendations on January 7, 1986, McDonough Caperton's Mike Waldron presented on April 8, 1986, an update on our group insurance. The positive aspects are categorized and delineated below.

Administrative — computer-generated update of each insured's coverage; continuous analysis of the insurance industry to assure the competitive quality of sponsored products, including comparisions of other association-sponsored products.

Product Development — Major Medical to allow enrollment up from age 60 to age 65; *Term Life* — added a 25-per cent bonus benefit for all insureds under age 60; added non-smoker discount; deleted 35-per cent benefit reduction at age 60 — full benefits continue to age 70.

Professional Office Overhead — revised from $5,000 to allow up to $7,500 per month maximum benefits; new survivor benefit added allows a lump sum of one month benefit to insured's estate. *Disability* — increased monthly benefits to $4,000/month; increased continuation of full benefits from age 60 to age 65; arranged for insureds over age 55 to secure coverage (or additional coverage).

Medicare Supplement — added a new high. option product: will conduct an open enrollment for members/employees over age 65 on a bi-annual basis; retained current coverage with no rate increase.

Marketing — have conducted two mailings since January, 1986, on Term Life and Long Term Disability; have scheduled (3) major mailing campaigns through September, 1986, on Major Medical, Term Life and Medicare Supplement.

A competitive, comprehensive analysis has been received from SMA which compares cost of WVSMA insurance program with nine other medical associations. This information plus the contents of your Insurance Committee's report may lend guidance to the Executive Committee in deciding which direction we should pursue for future group insurance coverage.

Medical Liability: Inasmuch as our very capable President, Dr. David Z. Morgan, has kept us well informed on the status of this subject, I will not labor further comment.

Respectfully submitted,
Jack Leckie, M. D., *Chairman*

Committee on Cancer

The annual meeting of the Cancer Committee was held August 16, 1985, in Charleston, and the Mid-Winter Clinical Conference Cancer Committee meeting January 26, 1986, also was held in Charleston.

An update of the Cancer Registry was presented by Dr. R. John C. Pearson. Doctor Pearson reported a new tumor registry was being established at Clarksburg. He also indicated that an attempt was being made to increase the number of tumor registries into the CHOP-DS system. He indicated that it is difficult to get new tumor registries started due to hospital cost containment programs and DRGs.

The American Cancer Society report was given by Ms. Shirley Barber, with approval of the CanSurmount Program given by the Committee. The colo-rectal health check-pilot study report was conducted in five counties. Eighty-one positive stool blood studies were obtained. A follow-up report of the workup of patients with positive stools is still pending. The danger of a false negative stool test was stressed.

Ms. Barber also presented the American Cancer Society Mammograph baseline study for women ages 35 to 39 and its objectives. She stated that insurance companies will not give reimbursement for routine mammogram examinations. Doctor Watne stated that there are studies done on mammography screening. The Committee suggested that the American Cancer Society contact the Family Practice and OB/GYN societies, present the importance of mammography, and encourage them to convey its importance as part of their continuing medical education programs.

The Cancer Prevention Study II report given by Dr. B. Rebecca Fidler had 11,881 patients in it; 7,638 of this group responded to specific questions regarding West Virginia lifestyle. Of the deaths in this group, 42 per cent were due to heart disease and 40 per cent because of cancer. Lung cancer was responsible for 32 per cent, gastrointestinal, 26 per cent; breast, 11 per cent; prostate, 0.8 per cent; uterus, 0.4 per cent; malignant melanoma, 0.4 per cent, and others, 15 per cent.

Doctor Watne introduced Linda Morningstar as a recipient of an $800,000 grant for the Cancer Communication System. The functions of this program are cancer information service and public education.

Doctor Steven J. Jubelirer was introduced as the new Chairman of the CAMC Cancer Center. Doctor Jubelirer discussed the CCOP program which is now with the Eastern Cooperative Oncology Group. Approximately 55-60 patients are on the protocol. He indicated that they are seeking more physician participants.

The Tumor Registry Report was given by Dr. John Frich. Doctor Frich discussed consideration of the CHOP and the Data Base III systems for use in the West Virginia Registry. No decision has been made yet as to which system will be recommended.

Dr. David B. Gray discussed the Tumor Registry in Charleston and the need for hospitals to circulate the results of cancer data.

Dr. Cordell de la Pena will present to the West Virginia Association of Pathologists the necessity and importance of reporting cancer deaths at the local level.

Doctor Watne stated that we have 42 cancer field liaison members appointed by the Chicago office of the American College of Surgeons and that there will be two replacements in the near future. He also announced the forthcoming meeting of the Field Liaison at The Greenbrier in May in conjunction with the West Virginia Chapter of The American College of Surgeons.

Dr. Peter Raich reported that the CHOP study is continuing. He discussed the Cancer Communication System which is funded by the NCI and its goal: to provide a Cancer information and coordination system for the public, physician and educators.

Respectfully submitted,
Alvin L. Watne, M. D.
Chairman

Committee on Impaired Physician

The Committee on the Impaired Physician of the West Virginia State Medical Association has endeavored to take a more active role in the past year. Members have been consulted and contacted by concerned colleagues as well as by physicians themselves seeking assistance and guidance. Recommendations for assistance and referrals for treatment have been accomplished.

Moreover, of greater concern to the Association, the Committee is working with the Council of the State Association and the newly formed Judicial Commission to increase members' awareness of the availability and potential benefit of active treatment. The committee should be perceived as a method by which impaired physicians and their families can be referred to suitable treatment facilities within this state or elsewhere. The Committee is not a punitive or case-finding or judgmental organization but it is developing approaches at the local county medical society level to foster all physicians' awareness of the potential for difficulties and problems which should be, and must be, addressed.

Committee members as well as the Chairman have worked with Doctor Morgan and other physicians in an effort to formalize the roles of the committee in a non-punitive and non-treatment-oriented approach, hoping that physicians can be encouraged to seek treatment voluntarily before serious licensure or ethical conduct issues come to the attention of either the Judicial Commission or the West Virginia Board of Medicine. Many members of the State Medical Association have shown an eagerness and an interest to participate in the working of the Committee, and this should bode well for active involvement in the future. Guidance is being sought from resources within the state as well as from programs out of state, and plans are being considered to have a consultant provide additional expertise to further assist the Committee.

Kenneth M. Fink, M. D.
Chairman

Committee on Medical Education and Hospitals

The West Virginia State Medical Association's Committee on Medical Education and Hospitals is an accrediting arm of the Accreditation Council for Continuing Medical Education and is charged with the responsibility for accreditation of intrastate continuing medical education programs, primarily at community hospitals.

The year 1985-86 (September-August) has been an "off year" for resurveys because most accreditations have been granted for periods of two to four years. Committee members and Association staff persons have resurveyed only one CME program at Reynolds Memorial Hospital in Glen Dale, granting a full four-year accreditation (continued); and withdrew one accreditation.

The Accreditation Council for Continuing Medical Education's Committee for Review and Recognition, composed of James D. Ingram, Director of CME for the Tennessee Medical Association, and James M. Long III, M. D., of Spartanburg, South Carolina, conducted a site visit to the West Virginia State Medical Association on February 22, 1986, for the purpose of examining files and reviewing our intrastate CME accreditation policies and procedures. The results of the CRR site visit will not be known to your Association until late in October when the annual meeting of the full CRR Committee meets to act upon recommendations from subcommittee accrediting activities.

Your Committee held its annual breakfast meeting on January 25, 1986, at the Marriott in Charleston (during the Association's Mid-Winter Clinical Conference) to approve in person retroactively those actions which had been taken by mail during the preceding year. It also met again on February 22 at the time of the CRR site visit and approved a recommendation to Council for its approval of, and financial support for, a CME needs assessment survey to be cosponsored by WVU School of Medicine, Charleston Area Medical Center and Marshall University School of Medicine, with the overall goal of the joint project being to secure information from physicians to assist in improving development, provision and sponsorship of CME in West Virginia. (Subsequently, Council approved Committee's recommendation, and questionnaires were mailed in June to physicians in West Virginia. A preliminary report of results of the survey is to be provided attendees during the 1986 Annual Meeting of the WVSMA in August, and results of the survey are to be published in an early winter issue of *The West Virginia Medical Journal*).

Staff, through your Committee, has kept Association members informed, through *Journal* articles and correspondence, relative to the change in CME credit hours allowed in Category 1 of the AMA's Physician's Recognition Award. Initially, there were six categories in which a physician might earn credit hours. Credit hours now fall into either Category 1 or 2 — a physician may earn all 150 hours in Category 1; however, a physician must have a minimum of 60 hours in Category 1 in order to receive credit toward PRA.

Your Chairman and Mary Hamilton, the WVSMA's CME Accreditation Coordinator, plan to attend the Annual ACCME's Conference for State Medical Societies in Chicago on October 9. As in past years, we will update your Committee on Medical Education and Hospitals upon our return from the meeting.

The Committee has its work cut out for it during 1986-87, with resurveys anticipated for Charleston Area Medical Center; West Virginia Academy of Ophthalmology; Veterans Administration Medical Center in Martinsburg; Jackson General Hospital in Ripley; Wheeling Area Continuing Medical Education (formerly the Ohio Valley Medical Center, Wheeling Hospital); St. Francis Hospital in Charleston; St. Mary's Hospital in Huntington; Weirton Medical Center, and American Heart Association, West Virginia Affiliate in Charleston.

Working relationships with the national ACCME office in the Chicago area have continued to be good. The Association was charged by its leadership in the early 1970s with developing a fair but demanding program for intrastate accreditation.

Our intrastate accreditation process has not been carried out without some problems. As reported earlier, there have been some hospital/institutions which have been denied accreditation or granted one-year probationary accreditation so that programs might be amended to meet Committee's standards. But the overall results seem solid and effective.

We have seen in past years, and continue to see, dedication and commitment to the program by CME directors, physicians and staff, and your Committee can assure you that the physician, staff and other expenditures are justified and provide an invaluable service to the Association.

Respectfully submitted,
William O. McMillan, Jr., M. D.
Chairman

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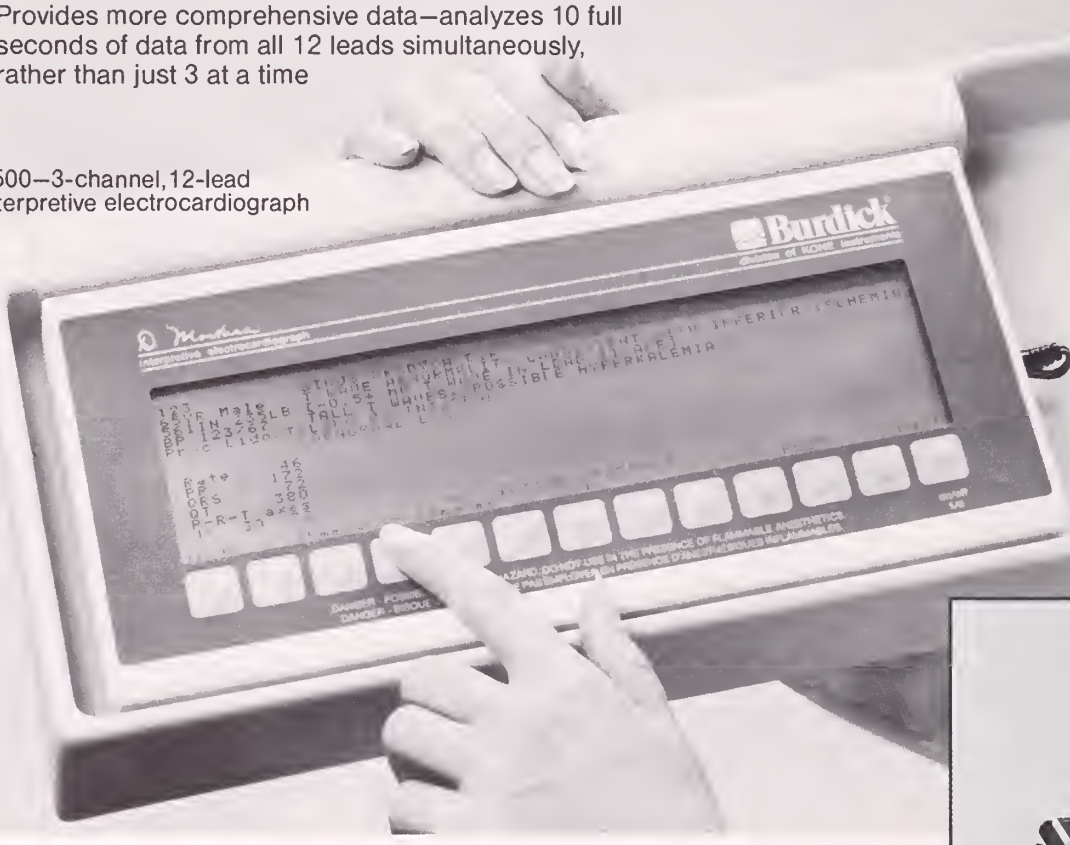

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WVU Medical Center News

Doctor Leaves $1.4 Million To WVU

A Bridgeville, Pennsylvania, family doctor who built a sizeable fortune through wise investments has left $1.4 million to WVU School of Medicine, which he attended for only two years in the 1930s. It is the largest cash bequest in WVU history and came as a surprise to University officials.

Myron L. McGarvey, M. D., who died 18 months ago at age 82, offered no explanation in his will for the large gift. However, family members believe it was based on his experience at what was then WVU's two-year medical school.

"He cherished the memories of the time he spent here," said his sister, Orpha. "He enjoyed those years — from both a personal and academic point of view — to the extent that he wanted his estate to benefit the school of Medicine."

The gift was announced at a news conference by WVU President Neil S. Bucklew and James A. Robinson, President of the WVU Foundation, Inc.

Left to Dean's Fund

"This is a tremendous material expression of the impact Doctor McGarvey clearly felt the WVU medical school had on his life and career," Doctor Bucklew said, "and it's a beautiful example of how alumni serve as partners in the growth and development of the institution."

The money, totaling $1,424,392 and making up the bulk of Doctor McGarvey's estate, was left specifically to the Dean's Fund, without restriction. Dean Richard A. DeVaul, M. D., said it will in part form the McGarvey Dean's Endowment, income from which will provide discretionary money to support the school's academic mission.

Doctor McGarvey was born in 1902 at Bridgeville, a Pittsburgh suburb where his father practiced medicine. When he was six the family bought a combined home and office on Main Street, and it remains the family home to this day.

Doctor McGarvey attended the University of Pittsburgh and taught chemistry before entering the WVU School of Medicine in 1931. The school then offered only the first two years of medical training, and he went on to the University of Pittsburgh for his M. D. degree. After a year of internship at Pittsburgh hospitals, he joined his father in practice at Bridgeville in 1936.

They practiced together for more than a dozen years before the father retired, and Doctor McGarvey limited his practice as he approached 70. He had never married, and died December 31, 1984, leaving his sister, Orpha McGarvey, as sole survivor. She lives in the family home in Bridgeville.

"He cherished the memories of the time he spent here."

"I don't recall him speaking of special plans to benefit the School of Medicine," she said. "It's obvious, however, that there was a strong affection — that he liked the faculty and appreciated the instruction he received here."

Though he was not a frequent visitor to the campus, McGarvey was a life member of the School of Medicine Alumni Association, and kept up with events at WVU through publications sent to him by the Association and the University.

Ms. McGarvey noted that her brother had served overseas in World War II, and in his later years numbered world travel as well as photography among his hobbies.

Dean DeVaul said that the bequest is the first from a physician with the magnitude of an endowed chair, which requires a minimum gift of $1 million.

"These are quality dollars that can make the difference between bare-bone programs, projects and opportunities, and the excellence that the School of Medicine is trying to accomplish," he said.

"As a physician, Doctor McGarvey appreciated the importance that these kinds of dollars can make in an academic environment."

Bequest a Surprise

Dean DeVaul said notification of the bequest last spring came as a surprise.

"But Doctor McGarvey had obviously planned it carefully, because his will designated the bulk of his estate to the Dean's Fund by specific account number — even though he did not notify us in advance," he said. Bequests also were made to relatives and to Children's Hospital in Pittsburgh. Doctor McGarvey conducted a general family practice and had many children among his patients.

School teaching was a tradition in the McGarvey family. Orpha as well as Myron taught school, and Ms. McGarvey obtained a master's degree at a time when advanced degrees for women were unusual.

Their grandmother also was a college graduate, and many other relatives including their mother were teachers. Ms. McGarvey said many of them attended Slippery Rock College.

The School of Medicine has five other endowed chairs plus two professorships endowed at one-half million dollars each.

From material furnished by the Medical Center News Service, Morgantown, W. Va.

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L. L. CLINE, Executive Director

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INTERNAL MEDICINE

General
B. L. VanPelt, M. D.
P. R. Hedges, M. D.
R. N. Lewis, M. D. (St. Clairsville)
M. J. Lohne, M. D. (St. Clairsville)
R. D. Morris, D. O. (New Martinsville)

Peripheral Vascular Disease
J. D. Holloway, M. D.

Cardiovascular
A. M. Valentine, M. D.
W. E. Noble, M. D.

Gastroenterology
T. E. Chvasta, M. D.
L. R. Cain, M. D.

Hematology/Oncology
C. A. Vasquez, M. D.

Nephrology/Hypertension
D. L. Latos, M. D.
M. H. Drews, M. D.
T. G. Kenamond, M. D.

Pulmonary
T. V. Burke, M. D.

Rheumatology
M. A. Stevens, M. D.

GENERAL SURGERY
C. D. Hershey, M. D.
E. C. Voss, M. D.
J. H. Mahan, M. D. (St. Clairsville)
R. L. Cross, M. D. (Martins Ferry)

THORACIC AND CARDIOVASCULAR SURGERY
H. Shackleford, M. D.

ORTHOPEDICS
E. L. Barrett, M. D.
R. S. Glass, M. D.

UROLOGY
D. C. Trapp, M. D.
B. M. McCuskey, M. D.

GYNECOLOGY
R. W. Leibold, M. D.
R. T. Brandfass, M. D

OBSTETRICS & GYNECOLOGY
T. A. Athari, M. D.
J. W. Campbell, M. D.
C. V. Porter, M. D.

OPHTHALMOLOGY
W. F. Park, M. D.
M. E. Nugent, M. D.
R. V. Pangilinan, M. D.

OTOLARYNGOLOGY/ MAXILLO-FACIAL SURGERY
W. A. Tiu, M. D.

RADIOLOGY
Valley Radiologists, Inc.

FAMILY PRACTICE
R. A. Porterfield, M. D. (St. Clairsville)
G. L. Cholak, M. D. (St. Clairsville)
E. L. Coffield, M. D. (New Martinsville)

DERMATOLOGY
M. Baron, M. D.

NEURO-SURGERY
F. J. Payne, M. D.

NEUROLOGY
H. L. Kettler, M. D.
S. G. Christopher, M. D.
W. Zyznewsky, M. D.
J. G. Tellers, M. D.
S. Govindan, M. D.

Neuropathology
S. Govindan, M. D.

PSYCHIATRY
S. D. Ward, M. D.
D. H. Smith, M. D.
D. P. Hill, M. D.
J. G. Tellers, M. D.

Pediatric Psychiatry
V. Stein, M. D.

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MU School Of Medicine News

Compiled from material furnished by the Office of University Relations, Marshall University.

Medical School Gets Full Re-Accreditation

MU School of Medicine has been fully re-accredited by the Liaison Committee on Medical Education for a three-year period.

Announcement of the re-accreditation was made by Gov. Arch A. Moore, Jr., following a July 8 meeting with MU School of Medicine Dean Lester R. Bryant, M. D.

"The visiting team found and reported many strengths in our young school of medicine," MU President Dale F. Nitzschke noted. "Doctor Bryant and his faculty and staff are to be commended for the excellent work they did in preparing for the accreditation visit. All of us are very pleased with their successful efforts."

Strengths cited by the LCME included community and physician support of the school, a dedicated faculty and loyal student body, good clinical resources, caring student services and counseling, and the school's emphasis on improving health care in the region.

The committee also praised the efforts of Doctor Bryant and Doctor Nitzschke, as well as the close working relationship they have developed.

"While we naturally are pleased with the full re-accreditation, we do have some significant concerns centered on the adequacy of our state funding," Doctor Bryant said. "The committee shares those concerns and, as a result, has asked us to submit a progress report next year."

Doctor Bryant said the progress report will deal with funding for additional needed faculty and support staff. At that same time, it will include information on the appointment of new chairmen of physiology and surgery, the accreditation status of OB/GYN and psychiatry residencies, and the progress in implementing the new incentive plan. The committee also asked for continuing information on applicants, students and alumni.

Family Medicine Student Training Grant Given

MU School of Medicine has been awarded a three-year, $27,200 federal grant for its plan to offer medical students special training in family medicine.

The Public Health Service grant provides funds for summer work experiences for 24 students, plus money for supplies and videotape equipment, according to Dr. Robert B. Walker, Chairman of Family and Community Health.

"The goal of the program is to produce more family physicians by showing medical students its special challenges and rewards early in their medical training," said Doctor Walker, who also is program director for the grant.

The Public Health Service gave Marshall's proposal the top ranking of the 54 received, calling Marshall "a strong new school" which commits substantial resources to introducing medical students to family medicine.

Medical students will use videotape equipment bought through the grant to improve their skills in taking patients' medical histories and in examining patients. In addition, the grant provides work stipends for eight students each summer.

Hypertension Research Profiled In NIH Article

Hypertension research of Marshall University School of Medicine physiologists William D. McCumbee and Gary L. Wright has been profiled in the Research Resources Reporter of the National Institutes of Health.

The article discusses their study of a red blood cell extract which produces significant and prolonged blood pressure reductions in hypertensive rats. It does not affect the blood pressure of normotensive rats.

McCumbee and Wright found evidence that the antihypertensive factor inhibits the uptake of calcium ions by segments of rat aortas, an action which might account for its antihypertensive effect. However, the compound has not been purified to homogeneity, so it is uncertain whether the same compound causes the reduction in both calcium uptake and blood pressure.

Faculty Promotions

Eight members of the School of Medicine faculty have received promotions. The faculty members, listed by their new rank, are:

Professor — Mahmood Heydarian, Pediatrics; Robert C. Touchon, Medicine;

Associate professor — Binni M. Bennett, Psychiatry; Colette A. Gushurst, Pediatrics; Joyce A. Martin, Family and Community Health; James M. Lewis, Pediatrics; Vernon E. Reichenbecher, Biochemistry;

Clinical assistant professor—Rocco A. Morabito, Surgery.

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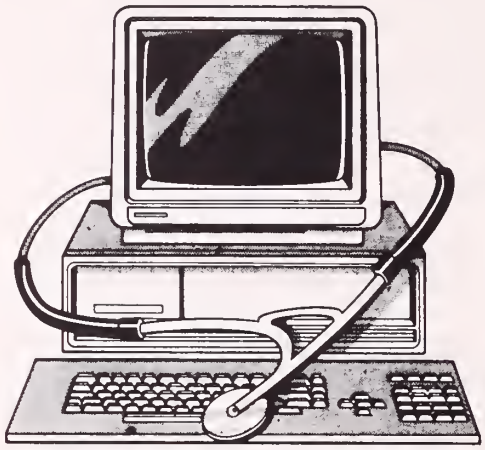
Manage your office more effectively with the MPM 1000 System available through the Physicians' Purchasing Program.

Managing your office shouldn't be hard; however, with the current insurance requirements and the impending Medicare changes looming on the horizon, it will get more difficult. You should call Curtis 1000 Information Systems or Southern Medical Association to find out how the MPM 1000 can help make your practice run more effectively.



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Obituaries

MARIA A. ESPANOL, M. D.

Dr. Maria A. Espanol, Williamson general practitioner and psychiatrist, died June 9 in a hospital there from an allergic reaction to a bee sting. She was 36.

Doctor Espanol was a native of the Philippines where she received her medical education. She also completed residencies at Providence and St. Quiz Both's hospitals in Washington, DC.

She was a member of the Mingo County Medical Society and Chairman of its Public Relations Committee, and a member of the West Virginia State Medical Association.

Survivors include the husband, Jose S. Espanol; two sons, Paul and Jose Espanol, Jr., at home, and a daughter, Joanne Espanol, at home.

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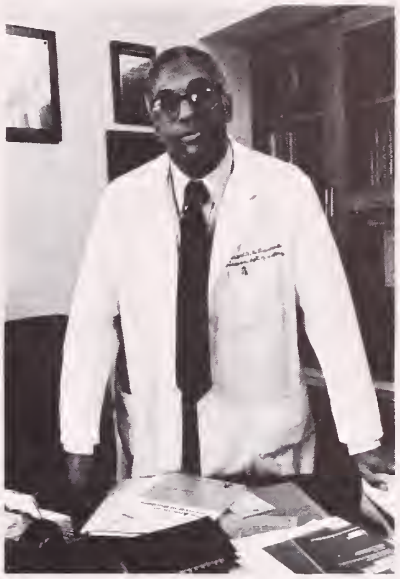

"If everyone over 50 had checkups for colorectal cancer, the cure rate could be as high as 75%," says Dr. LaSalle D. Leffall, Jr., past president, American Cancer Society. "You can't cure it if you don't know you have it." But if it's detected early, the cure rate for colorectal cancer is very high. Your doctor can perform the digital and proctoscopic exams, and you take care of the simple stool blood test at home.

Since men and women are equally affected by this disease, we urge everyone over 50 to get regular checkups.

The warning signs for colorectal cancer are a change in bowel habits and blood in the stool.

People with a family history of colon or rectal cancer or ulcerative colitis are at higher risk and are urged to be doubly cautious.

Checkup Guidelines for men and women over 50 without symptoms:
- digital exam annually
- stool blood test annually
- procto exam every 3 to 5 years after 2 negative tests 1 year apart.

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County Societies

CABELL

Dr. Herbert K. Naito Director of the Department for Lipid and Metabolic Disorders at the Cleveland Clinic, was the guest speaker for the meeting of the Cabell County Medical Society June 22. His topic was "Practical Aspects of the Control of Hyperlipidemias."

He presented test strategies for diagnosis and selection of current drugs to be added to the regimen of diet and exercise.—Mabel M. Stevenson, M. D., Secretary.

MINGO

The Mingo County Medical Society met June 11 at Williamson Memorial Hospital.

There was continued discussion on the malpractice specter and plans for the State Medical Association's Annual Meeting.

Expressions of grief were made in regard to the unexpected death of Dr. "Angie" Espanol [see obituary in this issue of *The Journal*—ed.], a beloved psychiatrist and member of our Society. In additions to flowers, two books were sent to the library in her memory.

It was suggested that we write a small article for the newspaper suggesting that people make preparation for unexpected reactions to swimming, poison ivy and bee sting allergy. —Manolo Tampoya, M. D. Secretary-Treasurer.

WESTERN

The Western Medical Society met at Green Hills Country Club in Jackson County on June 10 at the invitation of Kaiser Aluminum & Chemical Corporation after touring the Kaiser plant.

A company official stated Kaiser's desire to have close contact with the physicians of our Society.

A short business session was held. —Ali H. Morad, M. D., Secretary.

Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8½ by 11 in.) white paper. Wide margins at least 1¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 4106, Charleston, W. Va. 25364.

New Members

The following physicians were welcomed in June as new members of the West Virginia State Medical Association:

Eastern Panhandle:

C. Stuart Buchanan, M. D., 1008 Winchester Avenue, Martinsburg 25401, dermatology and clinical pathology

H. Brian Landes, M. D., 1008 Winchester Avenue, Martinsburg 25401, dermatology

Greenbrier Valley:

Terry D. Lesko, M. D., Humana Hospital, Davis Stuart Road, Lewisburg 24901, radiology

Hancock:

Jorge A. Martinez, M. D., 220 Country Club, Weirton 26062, anesthesiology

Kanawha:

Gregory Stonestreet, M. D., 5476 Big Tyler Road, Charleston 25313

Mason:

John D. Credico, Jr., M. D., Valley Drive, Suite 114, Point Pleasant 25550, obstetrics and gynecology

Parkersburg Academy:

John Nichols, M. D., 800 Garfield Avenue, Parkersburg 26101, emergency medicine

Medical Students

Lisa Atkinson, 321-5th Avenue, Apt. 1, Huntington 25701

Darin Kent Bowers, 315 Summers Addition, Milton 25541

Smoking Workshop

A training workshop for leaders of Freedom From Smoking clinics will be held in Charleston Friday, September 5, from 9 A. M. to 5 P. M. at the John XXIII Pastoral Center, Hodges Road.

The American Lung Association of West Virginia is the sponsor.

The cost of $40 covers materials, instruction, luncheon and coffee breaks. Phone (304) 342-6600.

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Internal Medicine:
Karl J. Myers, Jr., M. D.
Wm. A. SanPablo, M. D.
Gregg J. Fromell, M. D.

Pediatrics:
E. G. Kreider, M. D.
Beth E. Rezet, M. D.

Family Practice:
Charles L. Arnett, M. D.
R. Gregory Juckett, M. D.
James A. Arnett, M. D.

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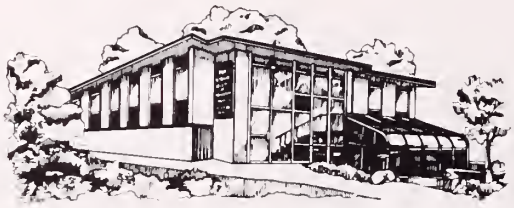

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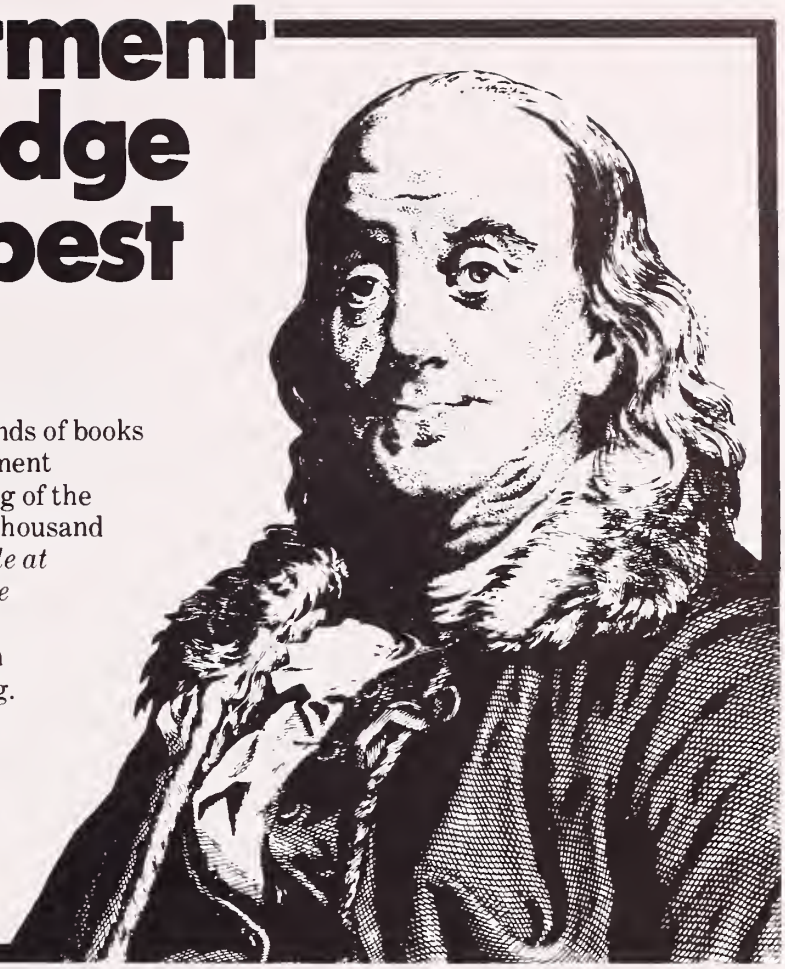

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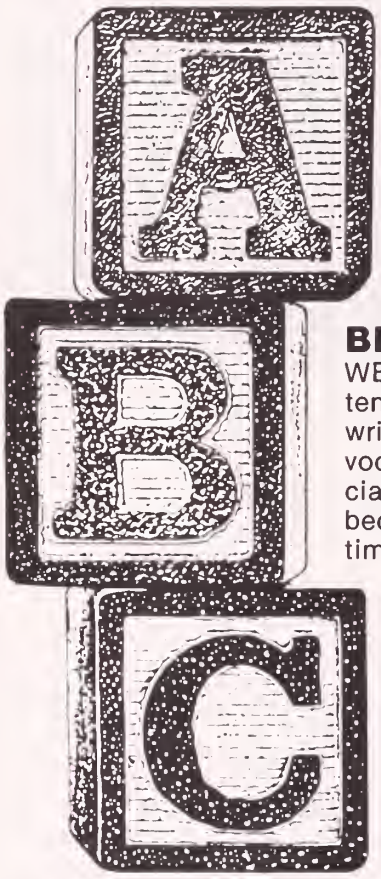
ABC's of PAC

It is not that complicated to understand and become involved with your state PAC; WESPAC, the West Virginia State Medical Association's Political Action Committee and AMPAC, the American Medical Association's Political Action Committee. Joining WESPAC makes you an automatic member of AMPAC. While it is not as simple as reciting the ABC's, all it takes is that initial **ACTION** to learn about WESPAC/AMPAC, **BECOME** involved and make that **COMMITTMENT** to political action that will strengthen medicine's impact on the political process.



ACTION — WESPAC/AMPAC means action for it brings bipartisan support for candidates to the West Virginia State Legislature and the U. S. Congress. Support comes in the form of financial contributions, voter registration and get-out-the-vote drives, absentee ballot activities, survey research for candidates media and direct mail advertising, and campaign work.

BECOME — Become informed about the political process, by joining WESPAC/AMPAC and start receiving their publications and mailings, attend their sponsored political education workshops and meetings. Also write letters to your congressman, state legislators and to the editor advocating medicine's position on certain issues. Other suggested physician/spouse political activities include testifying at the state Capitol, becoming a legislative liason for your specialty society, volunteering your time and talents to the candidates of your choice.

COMMITMENT — Make that commitment today and join WESPAC/AMPAC. Serve on the WVSMA Legislation Committee or WESPAC Board. Sign on as a legislative key contact and volunteer to assist the APB (Auxiliary Phone Bank).

Categories for membership for the period January 1 to December 31 are $100 for a Sustainer membership in which a Sustainer Pin is issued. Fifty dollars of the contribution goes to AMPAC, the AMA political action committee. A $50 regular membership keeps $30 in the state and sends $20 to AMPAC. Corporate checks can be used only for educational purposes since federal and state election laws prohibit corporations from contributing to political candidates. Make your personal check payable to WESPAC and mail today to WESPAC, P. O. Box 4106, Charleston, West Virginia 25364.

Before prescribing, see complete prescribing information in SK&F CO. literature or *PDR*. The following is a brief summary.

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of triamterene and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Angiotensin-converting enzyme (ACE) inhibitors can elevate serum potassium; use with caution with 'Dyazide'. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function. Thiazides may add to or potentiate the action of other antihypertensive drugs. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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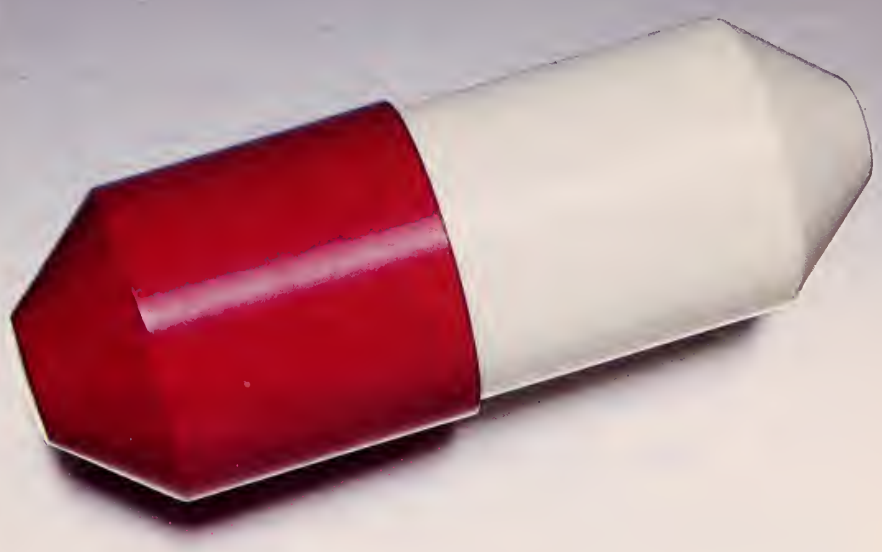

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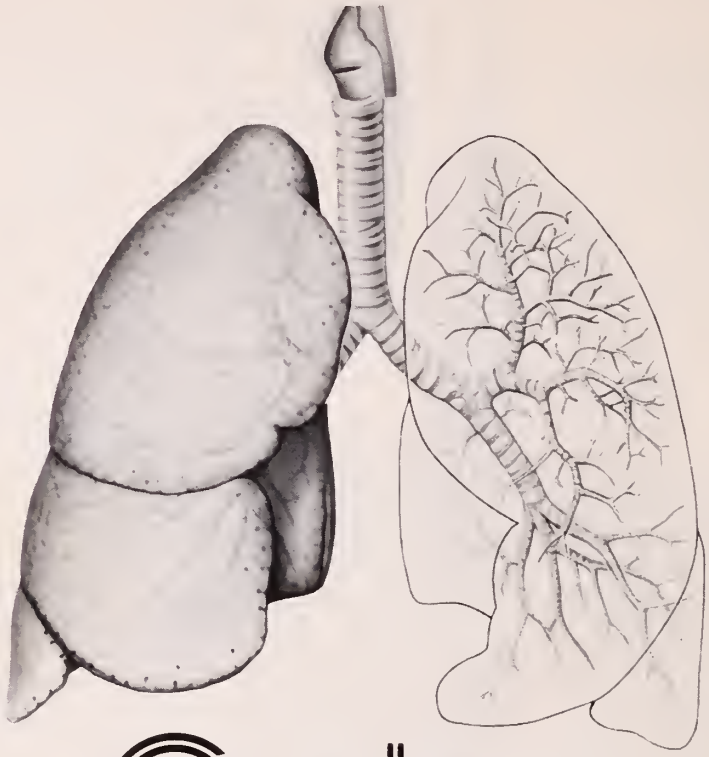

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Haemophilus influenzae, H influenzae, Streptococcus pneumoniae, Streptococcus pyogenes
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Note: Ceclor® is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

Ceclor® (cefaclor)

Summary. Consult the package literature for prescribing information.

Indications: Lower respiratory infections, including pneumonia, caused by susceptible strains of *Streptococcus pneumoniae, Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci).

Contraindications: Known allergy to cephalosporins.

Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:
- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- In renal impairment, safe dosage of Ceclor may be lower than that usually recommended. Ceclor should be administered with caution in such patients.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, erythema multiforme, serum-sickness-like reactions): 1.5%; usually subside within a few days after cessation of therapy. These reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%.

Abnormalities in laboratory results of uncertain etiology
- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children)
- Abnormal urinalysis; elevations in BUN or serum creatinine
- Positive direct Coombs' test
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest* tablets but not with Tes-Tape* (glucose enzymatic test strip, Lilly)

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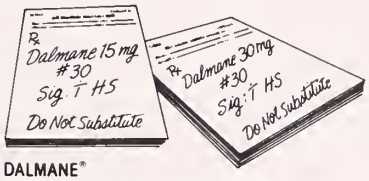

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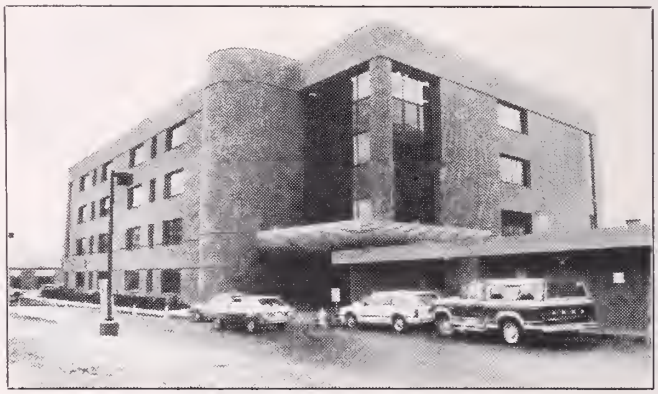

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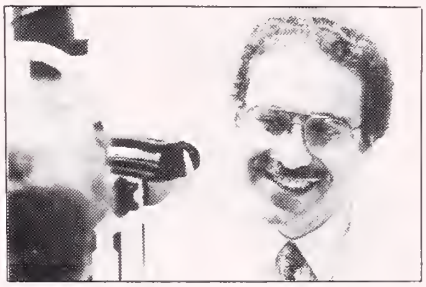

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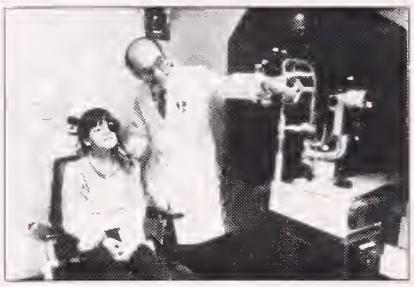

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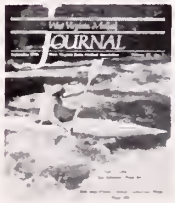

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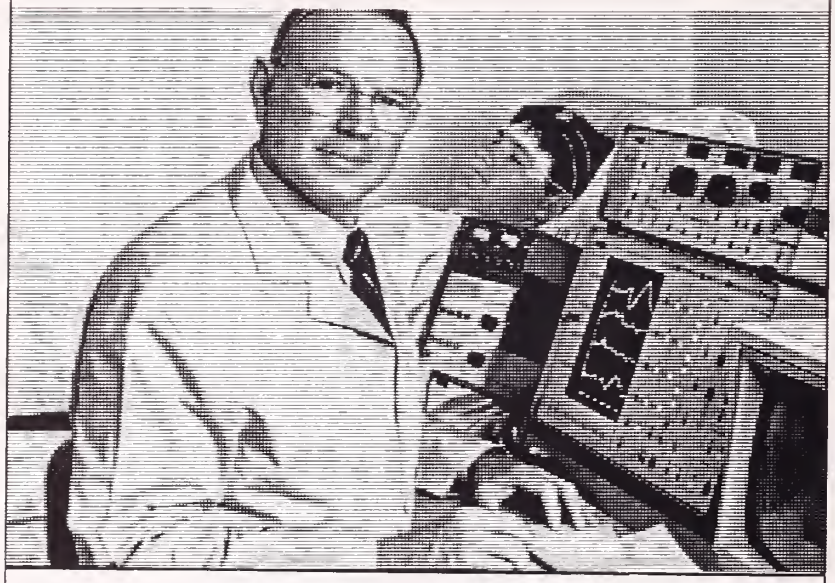

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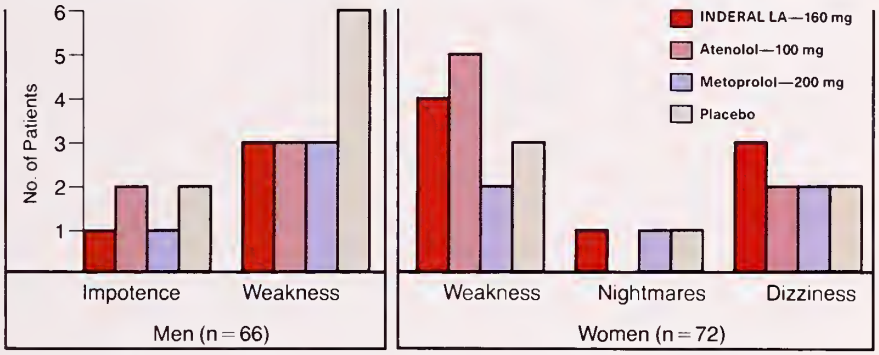

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IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following *abrupt* discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

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Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

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Propranolol hydrochloride (INDERAL® LA): GENERAL: Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY: Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS: Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

Hydrochlorothiazide: GENERAL: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY: Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS: Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL® LA): Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia, congestive heart failure, intensification of AV block, hypotension, paresthesia of hands; thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances, hallucinations; an acute reversible syndrome characterized by disorientation for time and place; short-term memory loss; emotional lability, slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis; ischemic colitis.

Allergic: Pharyngitis and agranulocytosis, erythematous rash, fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence, and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:

Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation; jaundice (intrahepatic cholestatic jaundice); pancreatitis; sialadenitis.

Central Nervous System: Dizziness, vertigo; paresthesias; headache; xanthopsia.

Hematologic: Leukopenia; agranulocytosis, thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity, rash; urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever, respiratory distress, including pneumonitis, anaphylactic reactions.

Other: Hyperglycemia, glycosuria, hyperuricemia, muscle spasm; weakness, restlessness; transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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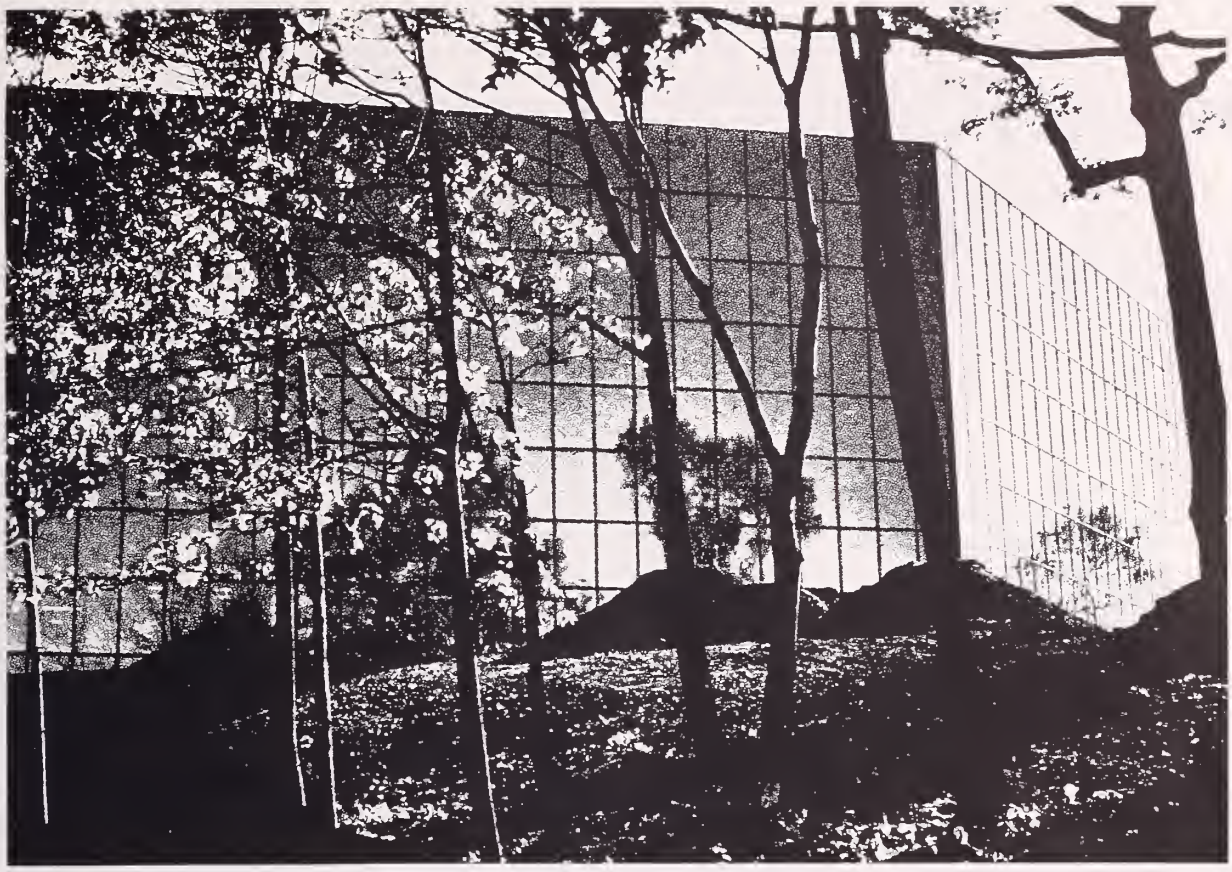

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Temporary Urinary Diversion In Children

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A comparison of the use of percutaneous nephrostomy, cutaneous vesicostomy, and high-loop ureterostomy for temporary urinary diversion in children at West Virginia University School of Medicine from 1973 to 1985 has been made. Twenty-three consecutive children managed by temporary urinary diversion were reviewed. Five had percutaneous nephrostomy, 13 had cutaneous vesicostomy, and six had high-loop ureterostomy (one had vesicostomy and subsequent ureterostomy).

The indications for temporary urinary diversion in children have decreased but, when necessary, the type of diversion selected should be based upon the etiology, severity of the disorder, and the anticipated duration of diversion.

Management of neurogenic bladder by intermittent catheterization and pharmacologic agents,[1] early closure of exstrophy,[2] and an aggressive surgical approach to obstructive uropathy and reflux[3] have significantly reduced the number of permanent urinary diversions being performed in children. Despite these developments, some children may benefit from a period of temporary urinary diversion prior to reconstructive surgery or initiation of intermittent catheterization of the bladder.[4]

The indications for temporary urinary diversion can be defined, and the best method for diversion can be selected for each clinical situation. Methods for temporary diversion that are usually successful and easily reversible are cutaneous vesicostomy[5-11] and percutaneous nephrostomy.[12] High-loop ureterostomy or pyelostomy are seldom needed, but occasionally may be required when cutaneous vesicostomy or percutaneous nephrostomy are unsuccessful in the treatment of azotemia or sepsis.[13,14]

A comparison of the use of percutaneous nephrostomy, cutaneous vesicostomy, and high-loop ureterostomy for temporary urinary diversion in children at West Virginia University School of Medicine from 1973 to 1985 was made. A systematic approach to therapy is outlined, based on level of urinary obstruction and influenced by cause and severity of obstruction.

Methods

Percutaneous nephrostomy was performed with the sequential use of ultrasonography and fluoroscopy.[15] Adequate sedation was achieved with the combination of demerol (two mg/kg), phenergan (one mg/kg), and thorazine (one mg/kg). Ultrasonography was used for localization of the kidneys and for opacification of the collecting system by fine-needle antegrade pyelography.

A second needle was placed into the pre-opacified collecting system through a posterolateral location in the renal parenchyma.[15] Using fluoroscopy, the needle tip could be visualized as it entered the collecting system. An appropriate-sized nephrostomy catheter was placed over a guidewire, the guidewire was removed, and the nephrostomy tube was sutured to the skin.

Cutaneous vesicostomy was performed by the Blocksom technique.[7] The dome of the bladder is marsupialized to the lower abdominal skin, creating a vesicocutaneous fistula (Figure). The bladder dome is mobilized well into the incision and sutured to the rectus fascia and the skin edges. Suturing the dome of the bladder to the abdominal wall prevents prolapse of the posterior bladder wall through the vesicostomy. A large series of successful Blocksom vesicostomies has been reported by Duckett[7]

Ureterostomy was performed by the high-loop technique. This type of

Figure. Example of location of vesicostomy between umbilicus and symphysis pubis.

ureterostomy provided good drainage of the upper urinary tract with minimal damage to ureteral blood supply, and was easily closed later.

Results

A total of 23 consecutive patients managed by temporary urinary diversion was reviewed. Five patients diverted by percutaneous nephrostomy are listed in Table 1. The mean duration of diversion for this group was 26 days with a range of six days to five weeks. All children in this group had a percutaneous nephrostomy performed after developing post-operative supravesical urinary tract obstruction, and all had the nephrostomy tubes removed after successful relief of the obstruction. A dislodged nephrostomy tube was the only complication in this group.

Cutaneous Vesicostomy

The 13 patients who underwent cutaneous vesicostomy are listed in Table 2. In general, the children managed with vesicostomy were much younger (mean three and one half weeks, range two days to eight months) than those managed by percutaneous nephrostomy (mean six and one half years, range four to 11 years). Nearly all of these children had urinary retention, with or without urinary infection and sepsis. Seven patients in this group had a neurogenic bladder, six of which were associated with myelomeningocele and one with a neuroblastoma. Five of the children had urethral strictures associated with imperforate anus or an intersex syndrome. One child had posterior urethral valves and presented with urinary retention and uremia. Complications encountered with cutaneous vesicostomy were prolapse in one child, stenosis in one child, and inadequate decompression of the upper urinary tract in one child requiring subsequent cutaneous ureterostomy.

Vesicostomies were maintained for a longer time than percutaneous (mean two years, range one month to six years). At the present time, seven (54 per cent) of the patients have had successful closure of the vesicostomy after the initial problem had been managed definitively. The remaining six patients (46 per cent) are stable.

Cutaneous Ureterostomy

Cutaneous ureterostomy (Table 3) has limited application, and few are performed now. Five of the six procedures were performed before 1976. They were generally performed in uremic children with hydronephrosis due to posterior urethral valves. Four of these patients would be managed by cutaneous vesicostomy today with fewer complications and easy reconstruction. Ureterostomy may continue to be applicable to children such as Patient 5 (Table 3) who did not improve with vesicostomy, or Patient 6 in whom bilateral cutaneous ureterostomy was more recently performed for uremia secondary to bilateral mid-ureteral strictures.

After ureterostomy, a urinary infection occurred in three patients (50 per cent), one patient had recurrent pyelonephritis, and one patient had stomal irritation. Four of the children have had the cutaneous ureterostomy closed while one remains stable, and a second one has progressed to renal failure (Patient 4). The mean duration for cutaneous ureterostomy was generally quite long (mean 2.7 years, range 11 months to six years).

Discussion

The indications for both temporary and permanent urinary diversion in children have diminished with improved techniques for primary correction of congenital anomalies of the urinary tract. Primary reconstruction is generally successful in uncomplicated patients. A form of temporary urinary diversion may be necessary when congenital urinary obstruction is complicated by azotemia, sepsis, generally poor condition or specific serious dysfunction in other organ systems.[8,12,13]

The method for temporary urinary diversion depends upon the etiology of the pathologic process and the anticipated duration of the diversion. Cutaneous vesicostomy as described by Blocksom is an easily reversible procedure that has been used in children with infravesical obstruction or neurogenic bladder. The procedure has been used in acutely ill infants with posterior urethral valves, and is likely to be successful in most patients.

Cutaneous vesicostomy also has been used to treat infravesical obstruction that can be corrected with less difficulty when a child is older. One patient from this series in whom vesicostomy was used for obstruction

TABLE 1
Percutaneous Nephrostomy

Patient	*Age in years*	*Sex*	*Diagnosis*	*Complications*	*Treatment*	*Duration of Diversion*
1.	5	M	failed uretero-neocystostomy	none	repeat ureteroneocystostomy	6 days
2.	11	F	uretero-ileal stricture	none	percutaneous dilation of stricture	5 weeks
3.	4	M	bilateral stricture of ureteroneocystostomy	dislodged nephrostomy tube	repeat ureteroneocystostomies	10 weeks
4.	8	M	failed pyeloplasty	none	repeat pyeloplasty	2 weeks
5.	5	M	failed uretero-neocystostomy	none	repeat ureteroneocystostomy	1 week

TABLE 2
Cutaneous Vesicostomy

Patient	*Age*	*Sex*	*Diagnosis*	*Clinical Presentation*	*Complications*	*Result*	*Duration of Diversion*
1.	1 week	M	myelomeningocele	failure to empty bladder	prolapse	stable	3 years
2.	2 weeks	F	idiopathic female intersex	failure to empty bladder	none	closed	2 years
3.	3 days	M	neuroblastoma, neurogenic bladder	failure to empty bladder	none	stable	4 years
4.	1 week	M	posterior urethral valves	uremia and urinary obstruction	none	closed	9 months
5.	8 months	M	myelomeningocele	failure to empty bladder	stenosis	closed, intermittent catheterization	6 years
6.	1 week	M	imperforate anus urethral stricture rectourethral fistula	failure to empty bladder urinary infection	none	closed	2 years
7.	4 days	M	imperforate anus urethral stricture	failure to empty bladder	none	closed	1 year
8.	5 days	M	myelomeningocele	failure to empty bladder	none	stable	15 months
9.	2 days	M	caudal regression syndrome, imperforate anus, solitary kidney	failure to empty bladder	poor drainage vesico-ureteral reflux	closed	11 months
10.	1 week	M	imperforate anus, urethral atresia, solitary kidney	sepsis, failure to empty bladder	vesico-ureteral reflux	closed	2 years
11.	4 days	M	myelomeningocele	failure to empty bladder	none	stable	10 months
12.	1 month	M	myelomeningocele	failure to empty bladder	none	stable	1 month
13.	2 weeks	F	myelomeningocele	failure to empty bladder, sepsis	none	stable	8 months

TABLE 3
Cutaneous Ureterostomy

Patient	*Age*	*Sex*	*Diagnosis*	*Clinical Presentation*	*Complications*	*Result*	*Duration of Diversion*
1.	3 weeks	M	posterior urethral valves	azotemia, sepsis, urinary ascites	pyelonephritis	closed	2 years
2.	4 months	M	posterior urethral valves	azotemia	none	closed	2 years
3.	11 years	M	refluxing megaureter, solitary kidney	renal failure	urinary infection	closed ureteroneo-cystostomy	6 years
4.	7 years	M	prune belly syndrome	hydronephrosis, sepsis	urinary infection	stable	4 years
5.	1 week	M	imperforate anus, urethral atresia vesicoureteral reflux, solitary kidney	no improvement with vesicostomy	none	closed	11 months
6.	8 months	M	bilateral mid - ureteral stricture	azotemia, failure to thrive	stomal irritation	stable	2 years

secondary to urethral duplication was previously described in detail.[16] The anomaly was later corrected, and the vesicostomy was successfully closed.

Cutaneous vesicostomy continues to have a role in the management of neurogenic bladder in children. Although permanent urinary diversion is seldom indicated for neurogenic bladder, temporary urinary diversion may be indicated in infants whose failure to empty the bladder results in persistent infection or hydronephrosis. Temporary vesicostomy has been effective in most patients in several reported series.[6-11] The vesicostomy is closed later when the child can be managed by intermittent catheterization and pharmacologic therapy. The procedure also can be used in infants with myelodysplasia who have progressive loss of renal function.[8] It also may be used in the initial management of high-grade reflux in the neonate.

Cutaneous vesicostomy in this series was performed for neurogenic bladder or infravesical urinary obstruction with favorable results. Seven of 13 patients have proceeded to closure of vesicostomy while all remaining patients continue to be candidates for closure at a suitable time.

Percutaneous Nephrostomy

Percutaneous nephrostomy, the second form of temporary urinary diversion considered here, was first described by Goodwin in 1955,[17] but only recently has gained widespread application. Percutaneous nephrostomy has markedly decreased the need for surgical diversion of the upper urinary tract in seriously ill children when the cause for hydronephrosis can be resolved in a reasonably short period of time. The procedure, either unilateral or bilateral, provides a rapid, simple means to achieve satisfactory urinary drainage for any process that can be corrected when the patient's condition has stabilized. The technique avoids an operative procedure in an acutely ill child, and can be performed with modest sedation.

Percutaneous nephrostomies can be used in infants without closed drainage, i.e. drain into a diaper. As in adults, the procedure is a nephrostomy, not a pyelostomy. Percutaneous nephrostomies in children can be hard to maintain, and another form of urinary diversion should be selected if the underlying process cannot be corrected in a short period of time. Percutaneous nephrostomy in this series generally was performed for complications of surgery of the upper urinary tract. The complication was resolved in each patient, and the nephrostomy tube was removed.

High-Loop Ureterostomy

When ureteral dysfunction or obstruction is a major component in the process leading to the need for temporary urinary diversion in an acutely ill child, and percutaneous nephrostomy or cutaneous vesicostomy are contraindicated or inadequate, bilateral high-loop ureterostomy can be performed. The advent of percutaneous nephrostomy and the improvement in surgical techniques for primary urinary tract reconstruction have reduced the need for high-loop ureterostomy in recent years.

A high-loop ureterostomy generally provides satisfactory drainage of tortuous ureters, and it is easier to reconstruct than end ureterostomy. Hendren restricts the procedure to severely ill infants with dilated, poorly draining ureters that cannot be subjected to early reconstruction.[18] Other authors report a greater use of both types of ureterostomy in the management of megaureter.[13,14]

Sytematic Approach Suggested

As a result of developments in percutaneous and surgical techniques, a systematic approach regarding temporary urinary diversion in children is suggested: 1) Primary correction of the urinary anomaly should be performed without urinary diversion when possible. 2) Percutaneous nephrostomy can usually be performed without difficulty for short-term diversion of the upper urinary tracts. 3) Cutaneous vesicostomy can be used for extended-term, temporary urinary diversion for infravesical obstruction or neurogenic bladder, and applies to a majority of children who will require temporary urinary diversion. 4) There is limited application for high-loop ureterostomy for extended-term temporary diversion of the upper urinary tract. This procedure should be reserved primarily for clinical situations in which other methods of temporary urinary diversion have been unsuccessful or may be expected to be unsuccessful.

The indications for temporary urinary diversion in children have decreased. When diversion is indicated, the type of diversion selected should be based upon the nature of the genitourinary problem and the anticipated duration of diversion.

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Primary Sclerosing Cholangitis

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A case of a 66-year-old, white male with primary sclerosing cholangitis associated with diabetes mellitus is presented. Clinical, operative, roentgenographic and pathologic evidence are presented. The patient was still alive more than five years after diagnosis. The good prognosis of this patient along with the prognosis of primary sclerosing cholangitis in general is discussed. Other features of the disease are also presented.

Primary Sclerosing Cholangitis (PSC) is a rare disease of the biliary tree affecting predominately males. It is a disease of unknown etiology. Review of the literature reveals that about half of the cases are associated with chronic, moderately severe ulcerative colitis and inflammatory bowel diseases.[1,2,3] Other conditions include autoimmune diseases, Riedel's struma and fibrous peritonitis.[4] One case was associated with autoimmune hemolytic anemia and hyperthyroidism.[5] Rarer conditions include porphyria cutaneous tarda and strongyloides.[3] We report here a case associated with diabetes mellitus.

Case Report

S.W. was a 66-year-old, white male admitted with the complaints of itching, jaundice, clay stools and vomiting for one week. He had a history of epigastric discomfort and intermittent abdominal pain for three years. There was no history of cholangitis. He was a known diabetic and had taken chlorpropamide for several years. He previously had undergone vascular surgery during which halothane (Fluothane) was used; one blood transfusion was given during the procedure.

At admission the patient was afebrile and jaundiced with pruritis-induced excoriations. He had a mild hepatosplenomegaly.

Laboratory data on admission revealed negative hepatitis antigens, alkaline phosphatase of 1092 IU/dl, SGOT 107 IU/dl, LDH 136 IU/dl, total protein 7.3 gm/dl, and albumin 3.7 gm/dl. The total bilirubin was 8.3 mg/dl with 3.5 mg/dl direct. The prothrombin time was 10 sec/10. The white count was 5900/ul with no eosinophilia.

Initially, the possibility of cholestatic jaundice due to chlorpropamide was entertained by the internist who was treating the patient. Four weeks after withholding Diabinese, his bilirubin and alkaline phosphatase went down to 3.1 mg/dl and 256 IU/1, respectively.

Abdominal sonogram revealed nonvisualization of the gallbladder due to possible contraction. His total bilirubin was fluctuating and went back up to 17.6 mg/dl with 9.0 direct, and his alkaline phosphatase rose to 1476 IU/1.

An exploratory laparotomy had been done 18 days following admission. The gallbladder was found to be scarred and chronically inflamed. The common bile duct was cord-like with a thick wall and narrow lumen. Exploration of the common bile duct revealed no stones. Biopsies of the common bile duct and liver were done. A cholangiogram revealed no stones, but found multiple areas of narrowing of the biliary tree consistent with the diagnosis of Primary Sclerosing Cholangitis (Figure 1).

Postoperatively, jaundice decreased gradually with T-tube drainage and a short course of bile salt and prednisone. The medications were stopped because of improvement and associated diarrhea. His total bilirubin was 2.2 mg/dl and alkaline phosphatase 85 IU.

Subsequently, the diabetes was controlled by Tolbutamide (Orinase) for four years and insulin for the ensuing year. The patient had no symptoms related to the biliary tree. His total protein was 5.9 gm/dl, albumin 3.4 gm/dl, alkaline phosphatase 139, SGOT 6, LDH 151 IU/dl and total bilirubin 1.6 mg/dl.

Comment

PSC is a rare disease, the recognition of which, however, has been increasing lately, as reflected by the reporting in the last decade. This increase is, perhaps, partially due to the liberalization of the diagnostic criteria. Earlier definition[6,7,4] insisted on four stringent criteria: 1) absence of previous biliary surgery; 2) absence of gallstones; 3) diffuse generalized involvement of the extra hepatic bile ducts; and 4) exclusion of cholangiocarcinoma by reasonably long followup. While some authors never did require the first criterion,[1] the liberalization of the third criterion along with introduction of ERCP[8] led perhaps to increased reporting. According to Cameron *et al.*, any patient with one or more inflammatory biliary tree strictures in whom iatrogenic injury or malignancy could be excluded is considered to have PSC. They also found the most common site of stricture at the biliary bifurcation. Danzi *et al.*[3] require for their third criterion operative demonstration of a fibrotic process involving the common bile duct, and often, hepatic

Figure 1. T-tube cholangiogram.

ducts. On roentgenogram they found strictures without dilatation and decreased arborization of the involved intrahepatic ducts.

Diagnosis

The diagnosis of PSC is based upon clinical, radiological and pathologic features which can differentiate PSC from primary biliary cirrhosis.[9] Our patient had multiple strictures at the area of biliary bifurcation. The cholangiogram revealed beading and no dilatation of ducts proximal to the strictures. In addition, the common bile duct was thickened diffusely and inflamed, and no stones were retrieved from it. The absence of previous abdominal operation excluded iatrogenic injury. The biopsy of the common bile duct and the five-year survival practically excluded primary cholangiocarcinoma and gave the patient a favorable prognosis.

The pathologic review of the gallbladder revealed scarring and chronic inflammation. The common bile duct biopsy revealed scarring with nonspecific chronic inflammation, with no evidence of atypia or malignancy. The liver biopsy revealed nonspecific triaditis and proliferation of radicals. There was no inspissated bile present in the bile canaliculi and no centrilobular necrosis (Figure 2). According to Chapman *et al.*, the histologic diagnosis of PSC is based on the finding of periductal fibrosis and varying degrees of portal inflammation, edema and fibrosis, duct and ductular proliferation, and cholestasis.[10]

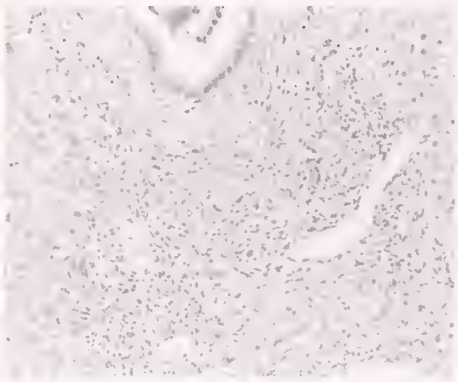

Figure 2. The liver biopsy revealed nonspecific triaditis and proliferation of radicals.

Association of autoimmune disease with PSC has been reported in the past. One patient had a generalized lupus erythematous and diabetes mellitus.[11] Our patient has type II diabetes without known autoimmune disease.

Chlorpropamide is reported to have produced cholestatic jaundice as a side effect in 0.4 per cent of cases.[13] Chlorpropamide-induced jaundice results principally from intracanalicular biliary stasis rather than hepatocellular degeneration.[14] Serial and progressive increases of the alkaline phosphatase associated with fever, rash and eosinophilia occur. Our patient had a fluctuating value of alkaline phosphatase and, on liver biopsy, no intracanalicular biliary stasis. He also did not have fever or eosinophilia. The onset of chlorpropamide-induced jaundice is usually within four to six weeks after initiating the therapy.[19,16] Furthermore, chlorpropamide-induced hepatitis is known to affect females, mainly blacks.[15] For all these reasons, the picture is not of chlorpropamide hepatitis. Though our patient had halothane anesthesia, he does not have the centrilobular necrosis associated with halothane and haloalkane-induced toxicity.[17]

Prognosis

The prognosis of PSC is variable. Some cases relentlessly lead to biliary cirrhosis, liver failure and death.[4] Other cases show early resolution and an eight-year survival.[6] Recent reports show a higher percentage of five-year survival.[2] This variation in prognosis is perhaps due to the fact that PSC may represent several separate entities.[12] The inclusion of these patients under the label of PSC helps the study of the cases, aids in the further understanding of the disease, and gives the patient a label that helps him in understanding his disease and its management.

ADDENDUM: The patient expired later from unrelated disease.

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Medical Grand Rounds

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Rationale For Treatment Of Hypercholesterolemia

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Experimental studies in animals and clinical observations in individuals and groups have shown that elevated cholesterol levels are an important factor in causing coronary artery disease. Primary and secondary intervention trials indicate that decreasing cholesterol levels will modify that risk. Details of several of these studies are reviewed.

Coronary heart disease is the major cause of death and disability in the United States, with an annual mortality of over 550,000 persons. Deaths from all kinds of cancer combined account for less than 500,000 per year.[1] It has been estimated that coronary heart disease costs more than $60 billion annually due to direct hospital costs and lost wages and productivity.

Several risk factors have been identified which predispose individuals to the development of coronary artery disease. The primary factors which may be modified include cigarette smoking, hypertension and hypercholesterolemia. Additional contributing factors are diabetes mellitus, inactivity, obesity, family history, male sex, and age. The presence of more than one risk factor results in enhancement of disease above the additive one.

The importance (and treatability) of hypertension and cigarette smoking is well accepted, although there is still some controversy regarding the best therapy for hypertension as well as the extent to which it should be treated. The pathogenetic role of cholesterol has been suspected for several decades, and the recent publication of the results of the Lipid Research Council's Primary Prevention Trial has increased the concern over hyperlipidemia and coronary heart disease.

Epidemiology

Epidemiologic studies have long suggested that there is a close relationship between blood cholesterol and both the presence as well as the extent of coronary artery disease. There is a close correlation between serum cholesterol and LDL cholesterol and mortality rates among various countries.[2] Oriental countries have both a low level of cholesterol and a low rate of coronary heart disease. Greece and Italy have an intermediate, while the highest rates are found in Finland. Within Finland, the highest rates are in the eastern county of North Karelia. This area had a mean serum cholesterol level of 274 mg/dl in men aged 30-60. A special, community-based intervention program which was established in order to reduce risk factors in the area will be discussed again in another section.

It should be noted that West Virginia has had the least decrease, so it and other Appalachian states now have among the highest rates of cardiovascular mortality in the United States. Perhaps our patients need special attention.

The international studies were cross-sectional ones. The Framingham study was a prospective one in which it was also found that hypercholesterolemia was associated with an increased rate of coronary heart disease.[3]

The importance of diet (and presumably serum cholesterol) and heart disease has been studied in individuals who migrate from an area of low to high heart disease incidence. Japanese who migrate to Hawaii or California have had both an increase in serum cholesterol as well as an increase in coronary heart disease.[4] A recent study[5] examined brothers who were born in Ireland, but one migrated to Boston while the other remained in Ireland. Serum cholesterol and mortality rates were higher in the brother who had moved to the United States.

No population has been reported which has a high rate of coronary heart disease and a low level of blood cholesterol.

Animal Studies

Experiments in various animals[6,7] lend support for the theory that blood cholesterol plays an important role in atherosclerosis. Pigs, rabbits and nonhuman primates develop atherosclerotic lesions when fed a diet high in cholesterol and saturated fats. The effect of intimal injury in producing atherosclerosis is increased if hypercholesterolemia is present. This model may be somewhat like the human circumstance in which the atherosclerosis of hypertension, which produces intimal injury, is magnified if the individual also has hyperlipidemia. The induction of atherosclerosis by diet in animals is achieved by feeding them a diet very much different than their usual one. This has led to concern regarding the relevance of these findings to man. Alternatively, perhaps man should eat more like a rabbit and thereby avoid atherosclerosis! Of additional interest has been the finding that reduction of lipid levels by dietary changes is associated with regression of atherosclerotic lesions. Similar regression or lack of progression has been noted in animals with exercise training.

Homozygous Hypercholesterolemia

There is also a human experimental model — that of homozygous Type II hyperlipidemia. Cholesterol levels are elevated at birth and are usually over

500 mg/dl. The abnormality is due to LDL receptor deficiency or a defect in the receptor activity. Coronary heart disease presents in the second decade of life with angina, myocardial infarction or sudden death. Survival into the third decade is unusual. Even in this group with extreme elevation in cholesterol levels, there is still a relationship between cholesterol levels and degree of coronary artery disease as measured by angiography.[8] Although normal levels of cholesterol have been difficult to achieve in these patients, both plasmaphoresis and ileal bypass surgery have resulted in improved levels of cholesterol and stabilization of disease. Isolated cases of regression of disease have also been reported.

Decrease in Coronary Artery Disease

Although coronary artery disease is still the most comon cause of mortality in the United States, the disorder has actually declined substantially since about 1950. The decrease in death rate was over 40 per cent in 1982 compared to 1950, and was noted among all segments of the population.[9] It should be noted that West Virginia has had the least decrease, so it and other Appalachian states now have among the highest rates of cardiovascular mortality in the United States. Perhaps our patients need special attention.

Dietary changes have occurred in the population since the 1950s.[10] The purchase of whole milk and cream has decreased by almost 25 per cent, the use of butter by more than a third. The per capita consumption of eggs is 15 per cent less, and of major note is an increase in the consumption of vegetable oils by 75 per cent. The estimated dietary intake of cholesterol was 600-800 mg/day in the 1950s Framington data. In the 1970s it was less than 500 mg/day, and is even lower today. These observations may be relevant to the finding of a decrease in the mean plasma cholesterol level from 1960 to 1970 in both the HANES and the Lipid Research Council (LRC) surveys.

A decrease in the smoking rate among men and treatment of hypertension also may have a significant role in accounting for the decrease in disease. But if the change in cholesterol is of some importance, this is more evidence that cholesterol levels are influential in promoting coronary artery disease.

An important question regarding serum cholesterol levels is whether there is a linear relationship to the amount of disease or whether a risk is present only at higher levels. Epidemiologic studies suggest that the relationship is a curvilinear one — with little increase at plasma levels of less than 150 mg/dl — such as in the Orient. A marked increase occurs in populations with levels above 200 mg/dl — such as in the United States; intermediate risk occurs in Italy and Greece where levels are 150-200 mg/dl. The Framingham and other epidemiologic studies likewise have shown a sharp increase in coronary heart disease in man with cholesterol levels above 220 mg/dl.

A marked increase occurs in populations with levels above 200 mg/dl — such as in the United States; intermediate risk occurs in Italy and Greece where levels are 150-200 mg/dl.

These observations make it important to consider values of cholesterol differently than other laboratory tests. In this circumstance, 95-per cent confidence values for defining normal levels may not be appropriate.

Clinical Trials

An important consideration is whether lowering the cholesterol level will make any difference in cardiovascular disease, morbidity or mortality. The question has been approached in two ways: 1) treatment of patients without symptomatic heart disease — primary prevention trials, or 2) treating those with established, symptomatic heart disease — secondary prevention trials. There have been several in each category which will be reviewed but, first, a few general comments are appropriate. Atherosclerosis is a slow, gradual process. It starts in childhood[11] with fatty streaks and progresses to vascular occlusion only after 30-40 years. Cholesterol within plaques or atherosclerotic lesions is exchangeable with serum but only slowly so, with a turnover of about a year. This slow rate of progression and regression makes a prolonged trial necessary before a change in lesions could be expected. Until recently, changes in lumen diameter or plaque regression have been difficult to measure, even angiographically, because of problems of obtaining exactly the same projection. Secondary trials are somewhat easier to perform because smaller numbers of patients are usually needed in order to demonstrate angiographic changes. In primary trials, asymptomatic subjects are involved, so angiography cannot be justified, either because of patient risk or the large numbers of patients to be considered. End points in type I trials are usually a fatal or non-fatal cardiac event or death from another cause. Because the annual expected death rate in the group of people at risk (middle-aged men) is only five per cent, large numbers of people must be studied for a prolonged period of time in order to establish whether a change in rate of death has occurred. Such a large study requires large numbers of investigators as well as patients, and is very expensive. Further, the enthusiasm and involvement of investigators may vary from place to place and thereby make results difficult to interpret. These reasons account for the paucity of clinical studies.

Primary Prevention Trials

The primary prevention trials to be considered include: the WHO multifactorial risk factor intervention study — and subsets of reports from the United Kingdom (UK) and Belgium, the Oslo study, the Finnish North Karelia study, the European clofibrate study, MRFIT, and the most recently reported, LRC study. Dietary instruction alone was used in the WHO, Oslo, North Karelia and MRFIT studies while the LRC and clofibrate studies used both diet and drugs.

The WHO multifactorial trial started in the United Kingdom and was later extended to include three other European countries — Belgium, Italy, Poland (Kracow and Warsaw)

to form the WHO European Collaborative Trial in the Multifactorial Prevention of CHD. The total participants numbered 60,881. The participating centers were autonomous but a common protocol was adapted to allow comparison and combination of results between nations.

The design of the study involved men aged 40-59, and the randomization was by factories, not individuals. Factories were matched for size, nature of industry and region. One of the pair was selected for intervention, the other served as a control. All male employees were invited to a screening examination. Those with the highest levels of multifactor risk (13 per cent) of the total received more intensive personal advice from the company physician. There was also a general program of information and propaganda with letters, booklets, posters and film shows.

Risk factors addressed were: 1) dietary advice — decrease dietary saturated fat and cholesterol, 2) stop smoking, 3) weight reduction for those greater than 15 per cent overweight, 4) exercise — a brisk daily walk or calisthenics, and 5) control of hypertension — thiazides for those whose blood pressure was greater than 160 mmHg. End points were 1) Fatal coronary heart disease (CHD); 2) Fatal and nonfatal myocardial infarction (MI), and 3) All deaths.

Half of the factory pairs were followed for five years, the rest for six. The UK[12] center included 24 factories and 18,210 men.

United Kingdom

The changes noted in the UK were small — there was no difference in the majority of men's cholesterol level which started at 215 mg/dl. In the high-risk group, with a 256 mg/dl level, a 2.7-per cent decrease was noted. Weight changed little; blood pressure decreased by 2.7 per cent in the high-risk group. Overall there was a four-per cent decrease in multiple risk factors, and an 11-per cent decrease in the high-risk group.

Although there was no significant difference between control and treatment groups, the results from the UK study cannot really be interpreted as negative because there was little modification of risk factors, especially cholesterol level.

Belgium

The Belgian[13] study was similar — 15 pairs of factories with 19,409 males ages 40-59 were involved. In this case, however, intervention was done by a study team that moved from factory to factory for intervention. In factories with canteens, the chef was advised on dietary modifications. About 21 per cent of men were designated as high risk and received multiple individual counselling sessions.

The primary prevention trials to be considered include: the WHO multifactorial risk factor intervention study — and subsets of reports from the United Kingdom (UK) and Belgium, the Oslo study, the Finnish North Karelia study, the European clofibrate study, MRFIT, and the most recently reported, LRC study.

Nonfatal MI was 26 per cent less frequent in the intervention group; total mortality was 17.5 per cent less in this group ($p<0.04$). There was a significant decrease in serum cholesterol from a baseline mean of 230 mg/dl; a decrease in cigarette smoking and improvement in blood pressure were also noted. This is a positive study in that changes in risk factors were associated with improved rates of coronary heart disease.

Italy, Poland

The Italian study showed a decrease in the combined risk factor level of 28.2 per cent; in Kracow, only 4.2 per cent. In Kracow the reduction in the high-risk group was 41.3 per cent; in Italy, 22.3 per cent.

Combining all the centers,[14] there was an 11-per cent decrease in combined risk estimate and a 19.4-per cent reduction in the high risk. Although the coronary heart disease rate decreased by 7.4 per cent, the coronary heart disease death by 3.9 per cent, and fatal and nonfatal MI by 3.9 per cent, none of these was statistically significant. Overall, however, the effect on coronary heart disease in the various centers correlated with their changes in risk factors.

Oslo Study

In the Oslo Study, all Oslo men aged 40-49 were invited for screening during 1972-73.[15] Those men with elevated risk scores (upper quartile) based on cholesterol, smoking and blood pressure were chosen for study. Random assignment resulted in 604 men in the intervention group, with 628 serving as controls. Detailed and specific, individualized diet instructions were given by a dietitian and physician and repeated every six months. Subjects were followed for five years.

Mean cholesterol values were 325 mg/dl in both groups initially, and decreased to 263 in the intervention group compared to 341 in the control group. Triglycerides did not change from 200 mg/dl in the control group but decreased from 190 to 129 in the intervention group. The mean tobacco consumption was 45 per cent less in the intervention than the control group; 25 per cent quit in the intervention group compared to 17 per cent in the control group.

The incidence of myocardial infarction and sudden death was 47 per cent lower in the intervention group ($p=0.028$). Total mortality and total cardiovascular events were less in the intervention group but this was not significant.

Finland

The North Karelia[16] study directed attention to a Finnish county with very high rates of coronary heart disease. This community-based program was started in 1972 and was directed toward educational efforts for smoking cessation, cholesterol-lowering diets, and hypertension. The control group was another county in eastern Finland where no intervention occurred. The study examined risk factors and CHD rates after five and 10 years. About 9,000 persons aged 30-59, men and women, were involved.

Smoking decreased in North Karelia among men, but not women, compared to controls. Cholesterol decreased

from 274 to 243 mg/dl in men. It did not change in women. Both systolic and diastolic blood pressures decreased significantly in both men and women in North Karelia.

By the end of the 70s there was a decrease in the coronary mortality in North Karelia. The reduction among males was significantly greater than the rest of the country. The changes in smoking habits may account for the majority of the improvement, but changes in cholesterol level may also have played a positive role.

European Clofibrate Trial

The European Clofibrate Trial[17] started in 1965 and treatment lasted an average of 5.3 years. Centers were in Edinburgh, Budapest and Prague (15,745 men aged 30-59 were screened). The men were divided into three groups depending on their cholesterol value. Those in the third with the highest values were divided into a treatment and control group of 5,000 each. The third with the lowest cholesterol levels served as another control group. The treatment group received 1.6 gms clofibrate: the controls received an olive oil placebo.

There was a nine-per cent decrease in cholesterol level from an initial level of 249 mg/dl. There was a 25-per cent decrease in nonfatal MIs but no difference between groups for other ischemic heart disease. Among individuals, the largest decrease in MI rate was in those taking clofibrate who had the highest initial and greatest fall in cholesterol levels. Triglycerides were not measured initially but were not higher in the treatment group in Edinburgh.

The overall concern regarding this study was the excess of total mortality in the treatment group, with an increase in various kinds of cancer and liver, gallbladder and intestinal disease. When subjects were reassessed eight years after stopping the drug, there was no longer an excess mortality, so the drug appeared to be implicated. No information is available as to whether the protection from ischemic heart disease events continued after stopping treatment. These results have caused concern about the use of clofibrate.

MRFIT Study

The MRFIT study[18] was a primary prevention trial composed of 12,866 men, 35-57 years of age, who were in the upper 10-15 per cent of cardiac risk. They were randomly assigned to a usual care (UC) and a special intervention (SI) group. Treatment consisted of stepped-up care for hypertension, counseling for smoking cessation, and dietary advice to lower cholesterol. They were followed for seven years.

There was no difference in coronary heart disease mortality between the groups. Cholesterol levels decreased in the SI group from 254 to 236 mg/dl: in the UC group it also fell from 254 to 240. The decrease in both groups was primarily in LDL cholesterol because HDL levels remained stable.

By the end of the 70s there was a decrease in the coronary mortality in North Karelia. The reduction among males was significantly greater than the rest of the country. The changes in smoking habits may account for the majority of the improvement, but changes in cholesterol level may also have played a positive role.

This study may show the influence of a national concern over dietary fat and cholesterol, with changes occurring in both groups. It indicates the need in such studies for a simultaneous, not a historical, control group.

Lipid Research Clinics Study

The final study to be considered is the LRC — Lipid Research Clinics study[19] covering 3,806 men aged 35-59 with a plasma cholesterol of 265 mg/dl or greater. All were instructed in a cholesterol-lowering diet. They then received either cellulose placebo or cholestyramine, 24 gm/day. They were followed 7-10 years. Participants actually took about 16 gm cholestyramine. Each group gained approximately two kg in weight. Study results are shown in the Table.

The incidence rate of coronary heart disease (CHD) was 19 per cent lower in the cholestyramine group. There was a seven-per cent decrease in overall mortality, which was not significant. There were more gastrointestinal diseases in the cholestyramine group but not significantly so.

This study has been cited as showing that a reduction in total cholesterol of 10 per cent will result in a 20-per cent reduction in the incidence of CHD.[20]

Secondary Prevention Trials

There are several type II studies which are of interest. In type II studies, coronary artery disease is already present, so angiography may be used to measure small changes.

The NHLBI (National Heart Lung and Blood Institute)[21] studied 143 patients, of whom 81 per cent were male, and who were randomly assigned to receive cholestyramine or placebo. They were followed for five years. Cholesterol was significantly lower in the treatment group. CAD progressed in 49 per cent of the placebo group, and 32 per cent of the control group. There were no significant side effects from the drug.

A similar study was done by Nikkila[22] in Finns. Twenty-eight patients were compared to 20 controls from another study. Followup was after seven years. If dietary response

TABLE

Changes in Lipids — LRC Study

	Placebo			*Cholestyramine*		
	Baseline	*Diet*	*7th Year*	*Baseline*	*Diet*	*7th Year*
TC mg/dl	292	279	277	292	280	257
LDL mg/dl	216	204	198	215	205	175
HDL mg/dl	45	44	46	45	44	47
TG mg/dl	158	153	173	160	156	183

Total Cholesterol (TC), Low-density Lipoprotein Cholesterol (LDL), High-density Lipoprotein Cholesterol (HDL) and Triglycerides (TG)

was not adequate, clofibrate and nicotinic acid were added. Cholesterol levels decreased in the treatment group, and all clinical and angiographic criteria favored the cholestyramine group.

Rosenhamer[23] studied 555 survivors of myocardial infarction. The treatment group received clofibrate and nicotinic acid. Cholesterol decreased by 15 per cent, and mortality was significantly less in the treatment group at six years (one year after cessation of therapy).

Surgical therapy has also been used.[24] Part of the distal ileum which interferes with bile acid resorption is excluded. The excluded segment is much shorter than if the procedure is done for obesity and no other side effects are reported. The decrease in cholesterol level with this procedure is about 40 per cent, and some cases of angiographic regression of disease have been reported.

Twenty-one of 25 patients with CAD showed improvement in cholesterol and less progression of disease after treatment with 30 grams of colestipol/day.[25] This was an uncontrolled trial, but the four patients who had significant progression of disease were also those who did not have a good response of their serum cholesterol levels.

The American Heart Association has issued a special report in which specific recommendations for dietary and pharmacologic treatment of hyperlipidemia are given. This may be found in Arteriosclerosis 4:445A-468A, 1984, and is recommended to readers as an excellent reference.

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Norton Shores, Michigan, Immediate Past President, Michigan State Medical Society Auxiliary

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One recent Sunday morning I found myself flying the "friendly skies" to Arlington, Virginia, for an AMPAC-sponsored Campaign Manager School. The course, the second AMPAC has held, is a five and one-half day intensive workshop, conducted by faculty from the Institute of Strategic Management. Leonard G. Hirsch, Ph.D., Director, is a well-known Washington political consultant.

"Participants study elements of political campaigning that include fund raising, the media, budgeting, volunteer coordination, political strategy and campaign theme development."

The purpose of the program is to train members of the medical community, physicians, spouses and friends of organized medicine in the methods of managing a political campaign. Participants study elements of political campaigning that include fund raising, the media, budgeting, volunteer coordination, political strategy and campaign theme development. AMPAC stresses that participation in the school requires a *serious* commitment, both during the week and after. It is advised that only those with time, specific intent and prior political experience attend.

My own participation stemmed from conversations with Kevin Kelly at MSMS and Jack Hitaling, AMPAC Assistant Director. My political experience includes two election campaigns of my own — I am currently serving a second four-year term on my local city council. And I had had volunteer involvement in other political campaigns. There is the possibility of a future campaign for other office for me and this school would be good preparation in that event.

Day One: I arrived in Washington, D.C., at noon Sunday, and at the hotel in Virginia in time to register and receive a *huge* notebook and folder packed with information. We began promptly at 1 P. M. with a welcome by Peter Lauer, Executive Director of AMPAC who introduced Doctor Hirsch. Doctor Hirsch outlined the program, gave an overview of our activities for the week, and laid some ground rules. Then he introduced Wilma Goldstein, Director of Survey Research for the National Republican Committee, and Joel Bradshaw, political consultant for the Democratic National Committee. We were divided into small groups to get acquainted.

There were 45 participants: three physicians, 23 Auxilians, several PAC staff people, several who are employed by legislators on their staffs, and medical society staff members. Men and women and a wide range of age and political experience were represented.

Roles and Responsibilities

We heard a description of the "campaign world" and about the roles and responsibilities of those involved. We heard a lecture on strategy, one on polling, and after a break for dinner, a talk on targeting.

We were divided into four groups of 11 or 12 people. It was explained that we were to conduct a campaign using material given to us about the

Requires A Serious Commitment

District, the results of a poll which had been conducted, and several other pieces of information describing the area and candidates. We were assigned to role play either a Republican incumbent or a Democratic challenger.

Our assignments were to take us, step-by-step, through a campaign ending with a presentation on Thursday morning. Critiques and grading would take place and the victor would be announced at dinner Thursday evening.

With an AMPAC staff person acting as facilitator, we adjourned to separate rooms with assignments to make a targeting plan, formulate a campaign strategy, and write a campaign announcement speech. We had to decide on duties and roles of each member of the group, and were given reading assignments each night which most never quite finished before falling into an exhausted sleep. Bedtime Sunday was 1 A. M.

Day Two: On Monday morning the "candidates" presented practice speeches. Since I had become the candidate for our group — "Allen" — I unofficially declared my candidacy for the 3rd Congressional District of the State of Euphoria. Discussion of each of the speeches was followed by a lecture. Jay Bryant, a Washington media consultant, gave a highly entertaining talk on theme and message. The afternoon lessons centered on planning, tactics, and the management system, and included some role playing in a "staff meeting." After a break for dinner, we learned about scheduling and advance work, then divided into our groups for more work on our congressional campaign.

Day Three: Most of Tuesday was spent exploring the financial aspects of a campaign: the budget, fundraising, and a session on party financing and PACs by Mr. Lauer and Tom Nides from the Democratic Congressional Campaign Committee. Late afternoon and evening centered around field operation, technology and volunteers in a campaign. Then, on to more work developing a budget, cash flow plan and income plan.

Day Four: Wednesday morning Jill Buckley and Jay Bryant, media consultants, explored with us the roles of both paid and earned media in a campaign. We saw videotapes of several campaign ads and discussed details and reasons for what we were seeing. In the afternoon, we heard about voter contact and suggested "get out the vote" efforts.

William Sweeney, President of Washington Resources and Strategy, spoke to us about opposition research and how to use it. Mr. Sweeney had that day returned from the Philippines where he had been a part of an International Poll Watch effort during the presidential election. He was extremely informative as he described his experiences there.

Our group met all afternoon and all evening to finish our campaign plan. We had made some basic decisions about theme and strategy, then divided up to do our individual role assignments. Late in the evening, we regrouped to put it all together for our presentation. This session lasted until nearly 2 A. M., at which time the hotel fire alarm sounded, and we all adjourned to the hotel lobby. We cheered the firefighters as they made sure there was no fire anywhere. Most of us finally retired around 3 A. M.

Day Five: Thursday — Election Day! Each group presented its campaign and explained how and why each part was done, including props, staging, humor, and anything else! Each was entertaining as well as instructive. This exercise took most of the day and included evaluations and voting.

Thursday evening, AMPAC hosted a cocktail hour followed by the victory dinner. Each group was a winner in some category, and one group won the overall campaign — not ours, however!

Day Six: Friday morning we met to review the whole program. There was much discussion, and some good suggestions were made. At intervals during the week, Doctor Hirsch had directed our attention to personal and group dynamics, and we continued to evaluate those processes. In a campaign as in most endeavors, the interaction of the people in the group is vitally important.

After some closing remarks by our consultants and Pete Lauer, the conference officially ended. Unofficially, many remained to say goodbye to new friends and acquaintances and to wish one another well in the campaigns that await us.

This was a unique experience, one that I am sure will be valuable to me. I enjoyed the people, the learning, and am grateful to AMPAC and MDPAC for the opportunity to attend.

The Choice Is Ours

"Welcome, it is your time now." the tall, silver-haired President said with a smile. Did I catch a twinge of sadness with that sigh of relief?

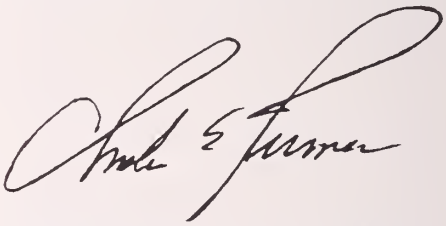
Transition — and there is much to be done! The societal and socio-economic pressures upon our profession are great.

There is actually an opportunity to complete some of the tasks facing our profession. In the coming months, I will be outlining several programs including the traditional ones of continuing medical education and programs to deal with the serious problem of liability insurance; there will be non-traditional ones involving coalition building and programs to improve the efficiency of private practice. We will be learning how to work more effectively with out best asset, our West Virginia State Medical Association Auxiliary

The West Virginia State Medical Association is in a strong position. We have an excellent corps of professionals in our State Office. We have had dedicated leadership and wise counsel, and have laid the foundation on which we can develop successful programs.

How successful we will be depends in a large measure on how much dedication we can bring to organized medicine. I know you will be dedicated to your patients and the care of the sick — that is understood; but will you bring a measure of that dedication to organized medicine?

In my judgment, there is little we can do as individual physicians to influence the forces now focusing on our profession, but as members of organized medicine we can modify and influence these forces. Will we? The choice is ours. I know my choice.



Charles E. Turner, M. D., *President*
West Virginia State
Medical Association

Heartening Results In CME Survey

A 33-per cent return following a second mailing has sponsors of the recent state CME survey smiling.

A report on preliminary results was given during the August WVSMA Annual Meeting, and we just had time to include some of the findings in this issue of *The Journal.*

As producers of a medical journal, we can't help but feel gratified to learn that the second highest level of agreement — concerning 10 factors associated with physician participation in CME — was that textbooks, journal articles and other written materials have great relevance as sources of CME. (About 94 per cent felt strongly about the value of these sources for their CME.)

The first and third levels of agreement, respectively, among the 10 factors were that practicing physicians enjoy interacting with their colleagues from the academic world (94.3 per cent), and that CME does have a value in addressing problems encountered in daily practice (93.2 per cent).

Early results indicate that physicians very definitely value CME as an important factor both in dealing with practice problems and as a factor that contributes to the well being of their patients.

These are just some of the preliminary results, but they indicate that the survey will yield significant findings. A full report will appear in a later issue of *The Journal.*

The sponsors of the survey, which consisted of 3,265 questionnaires mailed with 1,063 returns to date, are the CME offices at West Virginia University School of Medicine, Charleston Area Medical Center and Marshall University School of Medicine in cooperation with WVSMA and the West Virginia Chapter of the American Academy of Family Physicians.

Robert E. Kristofco and Sharon A. Hall, CME directors at WVU in Morgantown and CAMC, respectively, presented the preliminary convention report, and also are co-authors of the preliminary written report of survey results distributed during the meeting.

The sponsors asked *The Journal* to thank the West Virginia doctors who returned the CME questionnaires, and we are happy to oblige.

One final bit of news which is "icing for the cake." The joint sponsorship of this undertaking has begun to attract national attention. The principal authors have been invited — even before publication of its final results — to present a paper on the cooperative nature of the survey to a meeting of the AMA concerned with CME.

Tell It Like It Is

Physicians must continue to tell their story.

That story is one of dedication to quality medical care at reasonable prices in the face of multiple pressures named "cost containment."

We continue to hear criticisms of the high cost of medical care which always translates to "doctors charge too much" or "doctors make too much money." Perhaps some data gathered from the just-released *Soco-Economic Factbook for Surgery 1986* may help in the defense of physicians as they tell their story.

In 1950, physicians received 21.7 per cent of the health care dollars spent; in 1984, physicians' services accounted for only 19.5 per cent of the dollar spent. Hospital care in 1950 consumed 30.4 per cent of the health care dollar and, by 1984, took 40.8 per cent of it. Nursing home care in 1950 took only 1.5 per cent of the dollar but by 1984 accounted for 8.3 per cent of the dollar due to the ever-rising number of elderly who now are living long enough to need such care.

When the critics of health care rail about the high cost of medicine and health care they talk as though the sum total of all money spent somehow goes to physicians. They conveniently forget the amount spent on hospitals, drugs, eyeglasses, dentists, chiropractors, research, hospital construction, nursing homes and all other expenditures including over-the-counter nostrums and remedies which added together make up the category loosely called health care expenditures. Phoney arthritis cures, health food store expenditures, and in some cases, even athletic shoes, diet programs,

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etc. are added into the total "health" financial outlay.

In this cost-saving era much is made of the amount of government expenditures as well. It is of interest to note, however, that the government outlay for health was just 3.6 per cent of the national budget in 1984 compared with 27.8 per cent spent for defense, 13.2 per cent spent for income security (including retirement, disability, unemployment and public assistance) and 12.7 per cent spent for interest on the national debt.

Looked at another way, Americans in 1984 spent 20.3 per cent of their income on food, beverages and tobacco, 30.6 per cent on housing and household operations and 13.6 per cent on transportation while spending 11 per cent of their disposable incomes on medical care.

Or looking at the consumer price index using 1967 as the base (100) year, we note that it now takes $379.50 to purchase medical care which could be bought for $100 in 1967. While that sounds horrendous on the face of it, one must not lose sight of the fact that in 1967 we did not have heart transplants, coronary bypass surgery, lithotripters, CT scanners, or a host of other modern life-saving and life-extending or life-improving advances available. By contrast, the fuel oil and coal which $100 purchased in 1967 now costs $641.80 — nearly twice the increase in medical care spending.

Finally, looking at physician average earnings, there is no reason to be apologetic. The national average in 1984 for all physicians including all specialties was $108,400, while the national average for family practitioners was $71,100 and for pediatricians was $74,500. (Figures are net, after expenses but before taxes of any kind are paid.) These figures include the most exotic specialties from the higher-cost states as well as the poorest. It takes no mathematical genius to know that West Virginia doctors are below the national average given the general economic conditions of the state and the high cost of professional liability insurance.

The next time a critic speaks, remind that person of his or her need to know specifically of what he or she speaks. Medical care costs which include hospital charges, buildings, insurance premiums, drugs, ancillary services, dental costs, home remedies, over-the-counter purchases like band-aids and aspirin as well as physician costs are terribly misleading.

Doctors do not take the lion's share of the health care dollar, but they too often take the blame.

Our Readers Speak

Medicine In A Mechanized Age

Medicine is both science and art. It cannot be purely science or wholly art. Of all human endeavors, Medicine can be considered as the loftiest and noblest that an individual can possibly aspire to undertake as a career. The reason is simple. A doctor has to deal with human beings. To relieve pain, to console and to cure are the triad by which a doctor conducts himself in the performance of his duty.

Medical students, in order to prepare adequately and capably for their mission, spend time in college in terms of years of dedication and determination, learning painstakingly the science and art that is Medicine. In the process, they are compelled to catch up with the tremendous advances in scientific knowledge at a fast tempo and within a very limited time. That students circumscribe themselves purely with the scientific aspects of Medicine is more often than not the end result — that is, if they are not conscious that Medicine is not only a science but also an art.

This is a new era in Medicine, and with its attendant advances in knowledge and medical procedures, one can hardly predict which skill, aptitude, or unique knowledge will be required of the physician in the future. The variable picture of future human problems and increasing technological aids gives to Medicine a dynamic mood. And as science advances steadily and steeply, it will reach a point where mechanical diagnosis with the aid of electronic apparatuses becomes a reality.

What, then, is the implication of the "mechanization" of Medicine? Does it mean that the physician will step backward and let the "robots" do his work for him? This concept of "mechanical medicine" is, however, hardly the terminal point of these scientific trends. The true signifcance of this scientific achievement is in fact the enhancement of the art of Medicine. The equation of science to art will give way to a broader expression of medical science and medical art. It will, therefore, not be too whimsical to say that a complete physician in future times to come, aided by his robots and freed from the meticulous procedures involved in diagnosis and treatment, will have more time and energy to care for his patients, more scientifically and more artfully than ever.

Romeo Y. Lim, M. D.
1306 Kanawha Boulevard, East
Charleston, WV 25331

Impaired Physician, Adolescence, Geriatrics, Ethics to be Discussed

1987 Mid-Winter Conference Plans Announced

Problems of adolescence . . . concerns in geriatrics . . . ethical dilemmas for the 1980s and beyond . . . These are some of the CME subjects planned for the 20th Mid-Winter Clinical Conference next January 23-25.

The annual CME event will open Friday, January 23, at the Charleston Marriott and end at noon on Sunday, January 25, with scientific sessions scheduled Friday afternoon, Saturday morning and afternoon, and Sunday morning.

The 1987 physicians' session Friday evening will focus on the impaired physician and the WVSMA's Judicial Commission which, under the provisions of the Association's new constitution and bylaws approved last year, has final authority in matters pertaining to ethics, grievances and physician discipline.

Food for healthy living will be the subject of the concurrent Friday evening public session, with plans for a special two-hour "healthful" cooking demonstration and luncheon co-sponsored by the WVSMA's Auxiliary, beginning at noon that same day.

Alzheimer's Disease

Dr. Albert F. Heck of Charleston will speak on Alzheimer's disease during the geriatrics discussion Saturday afternoon, and Dr. Eugene A. Stead, Jr., from Duke University will be a speaker for the Sunday morning ethics session.

Doctor Heck is Professor of Neurology at West Virginia University, Charleston Division, a post he assumed in 1982 after serving on the faculty at the University of Tennessee. He also is staff neurologist at Charleston Area Medical Center, and Director, Neurological Training, WVU Charleston Division.

Born in Baltimore, he was graduated from Johns Hopkins University there, and received his M. D. degree in 1958 from the University of Maryland.

Doctor Heck interned at Mercy Hospital in Bartimore, and was a fellow in neurology, National Institutes of Health, at the University of Maryland Hospital.

He is certified by the American Board of Psychiatry and Neurology, and is a member of a number of committees and organizations. Offices held include that as Vice President of the American College of Angiology.

Doctor Heck is the author or co-author of 15 abstracts, three book chapters and 40 articles.

Duke Professor

Doctor Stead was Florence McAlister Professor of Medicine and Chairman, Department of Medicine at Duke from 1947-1967, and now is professor emeritus in that appointment. He also was physician-in-chief at Duke Hospital during those years.

(Continued on Next Page)

AMA PRESIDENT VISITS CHARLESTON—Dr. John J. Coury, Jr., President of the American Medical Association, was honored at a reception held by WVSMA in Charleston July 31. A noon speaking engagement August 1 with the Charleston Rotary Club initially brought Doctor Coury to Charleston but he also worked into the busy day visits to Charleston Area Medical Center, talks to medical students, and TV and other media interviews. Shown with Doctor Coury (right) are, from left, Dr. Harry S. Weeks, Jr., Wheeling, a WVSMA AMA Delegate; Shelley Moore and Governor Arch A. Moore, Jr.

Albert F. Heck, M. D.

Eugene A. Stead, Jr., M. D.

Doctor Stead is Editor of the *North Carolina Medical Journal* and past editor of *Medical Times* and *Circulation*. He is past secretary and president of both the American Society for Clinical Investigation and the Association of American Physicians, and also is past chairman of the Ethics Committee of the American Heart Association.

Born in Atlanta, Doctor Stead has received a number of awards and honorary degrees from professional groups and educational institutions.

He received both his undergraduate and M. D. (1932) degrees from Emory University, and took his internship and other postgraduate work at Peter Bent Brigham Hospital, Harvard and the University of Cincinnati.

Subject Areas

The Saturday morning session on adolescence will explore such problems as substance abuse, depression and suicide, and pregnancy. The geriatrics session Saturday afternoon, in addition to Alzheimer's disease, will include discussion of polypharmacy, immunization, exercise, nutrition and immobility, and depression.

The Sunday morning speakers on ethics will cover code issues, organ donations and the comatose patient.

The conference again is being sponsored by WVSMA, MU and WVU schools of medicine, and Charleston Area Medical Center.

Members of the Program Committee are Drs. William O. McMillan, Jr., Charleston, Chairman; Maurice A. Mufson, Huntington; Joseph T. Skaggs, Charleston; Richard G. Starr, Beckley; John W. Traubert, Morgantown, and C. Carl Tully, South Charleston.

Leukemia Research

The Leukemia Socity of America is offering two new awards to encourage research at both the basic science and clinical levels in the fields of leukemia and related diseases. The two awards are accepted on a quarterly basis (January 1, April 1, July 1 and October 1).

Proposals will be evaluated on a competitive basis by the Leukemia Society's Grant Review Subcommittee.

For application forms and additional information write to: Research Grant Coordinator, The Leukemia Society of America, 733 Third Avenue, New York, New York 10017.

Correction

The names of Drs. John B. Markey, Charleston, and W. W. Mills, Kenova, inadvertently were omitted from the list of WESPAC members appearing in the June issue of *The Journal*.

Doctor Markey is a sustaining member; Doctor Mills, regular.

The Journal regrets these omissions.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

*Sept. 6, Morgantown, Common Spine Problems

Sept. 10, Charleston, Home Health Seminar

Sept. 13, Charleston, Searching Medline: A Guide for the Health Professional

*Sept. 19-20, Morgantown, Ob-Gyn Teaching Days

Sept. 24, Charleston, Teleconference: "Who Lives, Who Dies, Who Decides?"

Oct. 1, Charleston, Faculty Research Day

*Oct. 10-11, Morgantown, Internal Medicine Update '86

Oct. 14, Charleston, The Role of Autologous Bone Marrow Transplantation for Solid Tumors

Oct. 18, Morgantown, 7th Annual Ophthalmology Conference

Oct. 18, Charleston, WV Thoracic Society

*Oct. 23-24, Morgantown, 12th Hal Wanger Family Practice Conference

Oct. 24, Charleston, Emergency Care Seminar

*Oct. 25, Morgantown, Pediatric Octoberfest

*Nov. 1, Morgantown, Cardiology Update

Nov. 5, Charleston, Adolescent Obesity

*Nov. 22, Morgantown, Magnetic Resonance Imaging

Dec. 11, Charleston, Newer Treatments for Lung Cancer

* in conjunction with WVU football games

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center/ Charleston Division

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — Sept. 18, "Colon Carcinoma," Steven Jubelirer, M. D.

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Wednesday, 8-10 A.M. — Sept. 10, "Outpatient Chemotherapy," Arvind Shah, M.D.

Oct. 8, "Pediatric Cardiology" (speaker to be announced)

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — Sept. 3, "Workup of Bleeding Disorders & Related Cancer Problems," Steven Jubelirer, M. D.

Greenbrier, Library, Greenbrier Clinic, 3rd Tuesday, 4-5 P. M. — Sept. 16, "Occupational Lung Diseases," Dominic Gaziano, M. D.

Madison, Boone Memorial Hospital, 2nd Tuesday, 7-9 P. M. — Sept. 7, "Diet & Cancer," Sue Warren, M. D.

Oct. 14, "Update Respiratory Therapy," Mahendra Patel, M. D.

Nov. 11, "Acute Medical Emergencies & Transport," John Walker, R.N., & Nancy Crittenden, R.N.

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — Sept. 23, "Colonoscopy," Brittain McJunkin, M. D.

Oct. 28, "Update Cardiovascular Surgery" (speaker to be announced)

Summersville, Summersville Memorial Hospital, 1st Tuesday, 6:30-8:30 P. M. — Sept. 2, "Evaluation of Adrenal Function," Richard Kleinmann, M. D.

Oct. 7 (vacation)

Nov. 4, "Pulmonary Function Testing," Bippin Avashia, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — Sept. 17, "Reading Chest X-Rays," Bippin Avashia, M. D.

Oct. 15, "ENT," Nabil Aragheb, M. D.

Nov. 19, "Update Hematological Malignancies" (speaker to be announced)

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — Sept. 24, "Update Dermatology," Robert Point, M. D.

Oct. 22, "Update Emergency Medicine," Edward Wright, M. D.

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — Sept. 4, "Leukemia & Blood Products," Victorino Teleron, M. D.

September Conferences Scheduled In Clarksburg

Following are one-hour CME conferences for September (not including those held before press time) scheduled at United Hospital Center in Clarksburg through the Family Practice Residency:

Sept. 8, "Thrombolytic Therapy;" Sept. 15, "Pre-op Cardiac Evaluation;" Sept. 23, "Eczemas;" and Sept. 24, "Carcinoids."

For additional information, call (304) 624-7589.

Class Of 90 Begins At WVU

Sixty-six men and 24 women began their first year of study August 25 in the West Virginia University School of Medicine.

The group includes 85 West Virginians, two each from Maryland and Pennsylvania, and one from Florida.

Of the 71 who received their premedical education in West Virginia, 51 attended WVU. Nine attended Marshall University, four were students at Fairmont State College, and three are Wheeling College alumni. Bethany College, University of Charleston, West Virginia Institute of Technology and West Virginia Wesleyan College also are represented.

West Virginians in the class are from 26 counties. Monongalia's total of 16 reflects partly the change of legal address many students make during undergraduate years at WVU. Kanawha County has 14 residents in the class; Marion and Ohio each have seven; Cabell and Hancock, five each, and Wood, four.

Names listed represent those accepted as of July 25. The list does not include names of alternates who may be admitted if withdrawals occur. Members of the class, their hometowns, and the colleges or universities they attended include:

Berkeley: Hedgesville — Andrew J. Bernes, Midwestern State; Martinsburg — Florence Hanna, VA Medical Center, Grace College;

Braxton: Sutton — Stephen R. Martin, WVU;

Brooke: Bethany—Keith L. Hassan, Knox College; Wellsburg — Robert D. Whitehead, MU;

Cabell: Huntington — Joseph M. DeBord, WVU; Pedro M. Montero, MU; Vernon Francis Morenas, MU; and Felicity M. Warren, MU; Milton — James Lee Cummings II, MU;

Fayette: Montgomery — Mary M. Shaaban, West Virginia Institute of

Technology: Mt. Carbon — James C. Young, MU;

Grant: Maysville — Lynn Keplinger, WVU;

Hampshire: Romney — Chris S. McCauley, WVU;

Hancock: Weirton — Paul Capito, WVU; Eric H. Davis, Bethany College; Robert M. Gerbo, WVU; Samuel D. Licata, WVU; and Tony P. Sellitti, WVU;

Harrison: Clarksburg — Michael I. Oliverio, WVU; John V. Onestinghel, WVU; and Robert D. Snyder, Wheeling College;

Jefferson: Kearneysville — Karen Saville, WVU;

Kanawha: Charleston — John J. Hollandsworth, University of Charleston; Matthew S. Koval, WVU; David P. Malone, WVU; Mark A. Margolis, Connecticut College; David R. Maxon, WVU; Steven T. Richardson, WVU; Yuthapong Sukkasem, WVU; Laura Summers, University of Kentucky; Chesapeake — Timothy R. Deer, West Virginia Institute of Technology; St. Albans — Diane Edwards, WVU; South Charleston — Robert Cavender, WVU; William G. Faulkes, WVU; Joyce S. Neilan, Yale University; and Jack F. Shamblin, WVU;

Marion: Barrackville — Trudi Brown, Fairmont State College; Fairmont — Christopher A. Ashton, Fairmont State College; Volkan O. Taskin, WVU; Robert C. Thomas, Fairmont State College; and Patricia M. Tsai, WVU; Fairview — James B. Legan, WVU; Rivesville — Stephen M. Pickstone, WVU;

Marshall: Glen Dale — David M. Anderson, Wheeling College, and Irene J. Zervos, WVU;

Mineral: Ridgeley — Barry D. Dayton, WVU;

Mingo: Williamson — Torin P. Walters, WVU;

Monongalia: Independence — Jon S. LaPlante, WVU; Morgantown — Kenneth S. Allen, University of Colorado; Anita G. Clausner, WVU; Timothy M. Daly, WVU; Carolyn P. Engle, WVU; Michael W. Gabriele, WVU; Alan R. Hess, WVU; Teresa B. Miller, WVU; Gregory Moses, MU; Mitchell E. Nutt, WVU; Teresa Raich, WVU; Stanley D. Schaeffer, Purdue University; Robert D. Silberg, Temple University; Amrit R. Singh, WVU; Christian L. Traynelis, WVU; and Charles W. White, University of Virginia;

Morgan: Berkeley Springs — Pamela G. Largent, WVU;

Ohio: Wheeling — Susan Entrees, Allegheny College; Christopher Giza, Dartmouth College; Rey Pangilinan, University of Notre Dame; Paul Papadimitriou, WVU; David Rust, WVU; Elisabeta Sengewalt, Wheeling College; and Andrew Thomas, WVU;

Pendleton: Seneca Rocks — Rebecca E. Wimer, WVU;

Preston: Bruceton Mills — Barbara J. Lewis, Seton Hill College; Hopemont — Chia-Ling Wang, WVU; Kingwood — James V. Gainer, University of Virginia;

Raleigh: Beckley — Sara L. Neal, MU;

Randolph: Elkins — Aaron W. Hensley, West Virginia Wesleyan College;

Wayne: Ceredo — Keith E. Leap, II, MU;

Webster: Webster Springs — Gerald C. Hamrick Jr., Fairmont State College;

Wirt: Elizabeth — Douglas S. Tice, WVU;

Wood: Mineralwells — Joel C. Michael, WVU; Parkersburg — Michael Barrett, WVU; Sloane R. Blair, University of Georgia; Vienna — Robert T. DePond, WVU.

Out-of-State: Florida, Rockledge — John D. Whited, University of South Florida; Maryland, Gambrills — Robert A. Yapundich, WVU; Greenbelt — Joseph B. Selby, University of Maryland; Pennsylvania, Clairton — Mark S. Richard, WVU; Elwood City — Joseph R. Burcik, University of Pittsburgh.

Medical Meetings

Sept. 12-18—Am. College of Radiology, Baltimore.

Sept. 15-17—Am. College of Nutrition, Washington, DC.

Sept. 15-18—Am. College of Emergency Physicians, Atlanta.

Sept. 20—WVSMA Loss Control Seminar, Parkersburg.

Sept. 22-26—Am. College of Chest Physicians, San Francisco.

Sept. 25-28—Am. Society of Internal Medicine, Seattle.

Sept. 27-28—Arab Am. Medical Assoc., Charleston.

Sept. 27-Oct. 2—Am. Academy of Family Physicians, Washington, DC.

Oct. 5-8—Am. Neurological Assoc., Boston.

Oct. 8-10—Traumatic Head Injury Conference, Braintree, Mass.

Oct. 14-18—Medical Group Management Association, Loss Angeles.

Oct. 15-17—Am. College of Gastroenterology, Atlanta.

Oct. 18—WVSMA Loss Control Seminar, Beckley.

Oct. 19-24—Am. College of Surgeons, New Orleans.

Oct. 19-24—Am. Academy of Physical Medicine & Rehabilitation, Baltimore.

Nov. 2-7—Am. Society of Therapeutic Radiology & Oncology, Los Angeles.

Nov. 8—WVSMA Loss Control Seminar, Huntington.

Nov. 9-13—Am. Academy of Ophthalmology, New Orleans.

Nov. 12-16—Am. Medical Women's Assoc., St. Louis.

Nov. 15-18—Am. Assoc. for Clinical Immunology & Allergy, Ft. Lauderdale, Fla.

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Jan. 15-17—Neurosurgical Society of the Virginias, Hot Springs, Va.

Jan. 23-25—20th Mid-Winter Clinical Conference, Charleston.

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WVU Medical Center News

West Virginia University

From material furnished by the Medical Center News Service, Morgantown, W. Va.

Neurosurgery Chairman Keeps Up Tradition

Howard H. Kaufman, M. D., has his work cut out for him. As Chairman (July 1) of the Department of Neurosurgery, he heads an active service at WVU Medical Center.

Chosen from among the many candidates interviewed to succeed G. Robert Nugent, M. D., who had reached mandatory retirement age as Chairman, Doctor Kaufman counts being Professor and Associate Chairman at WVU since 1983 a distinct advantage in trying to carry on Doctor Nugent's long tradition of excellence.

What's the key to doing this? "Just don't slow down." Doctor Kaufman said.

That's not likely, since committee work and research activities vie for his attention regularly with patient care, teaching and administrative duties.

"With other Medical Center specialists, we're developing an interdisciplinary spine service. Low back pain is a tremendous problem not just in West Virginia but throughout the nation. But the focus can't be from just one direction. Many times we need a variety of experts together . . ."

Doctor Kaufman heads the residency program in neurosurgery and coordinates each resident's research training. He is a lecturer for third-year medical students and in the neurosurgery elective for fourth-year students. He has also helped organize courses in neurosurgical nursing.

Doctor Kaufman's research has been in the areas mainly of head injury and stroke, including such subjects as treatment of gunshot wounds to the head, congenital spine problems, and noninvasive testing for asymptomatic carotid disease.

A magna cum laude graduate of Yale University, Doctor Kaufman received his medical degree from Columbia University College of Physicians and Surgeons.

After a surgery internship at the University of Minnesota Hospital, he spent a year as registrar at the National Hospital for Nervous Diseases in London and two years as clinical associate in surgical neurology at the National Institute of Neurological Disease and Stroke. He completed a residency in neurological surgery at the Neurological Institute of New York, Columbia Presbyterian Medical Center. Last year, he received its distinguished alumni award.

He came to WVU after eight years as a member of the neurosurgery faculty in the University of Texas Medical School at Houston.

Howard H. Kaufman, M. D.

An examiner in 1985 for the American Board of Neurological Surgery, he has served on the editorial boards of *Neurosurgery* and *Clinical Neurosurgery*, and is a consultant for several scientific book publishers. He has just been named a consultant for devices to the Food and Drug Administration and to the Joint Commission on Accreditation of Hospitals.

Doctor Kaufman has been given a $40,000 grant by Sandoz Laboratories to organize a national symposium on pediatric brain death, to be held next year in Washington, D. C.

Raich Named Cancer Society Professor

A WVU professor of medicine has been named American Cancer Society Professor of Clinical Oncology by the West Virginia division of ACS. The award is part of a grant offered to a limited number of medical schools in the United States to support outstanding faculty clinicians in the field of cancer.

Peter C. Raich, M. D., Chairman of the Section of Hematology/Oncology, was selected for the award on the basis of his professional qualifications, and facilities and supporting staff available at WVU Medical Center and the Mary Babb Randolph Cancer Center where he is Associate Director for Clinical Research.

The award includes a five-year grant of $125,000 to support programs to strengthen or initiate cancer education and clinical research at WVU and statewide.

"The professorship will bring together a number of disciplines involved in cancer research, education and treatment," Doctor Raich said.

He recently was elected President of the West Virginia Division of ACS.

Obituaries

WIRT W. DUFF, M. D.

Dr. Wirt W. Duff, who practiced in Elkview (Kanawha County) for 50 years, died July 28 at his home there. He was 83.

Born in Jackson County, he attended West Virginia University and was graduated from the University of Louisville Medical School.

Survivors include the wife, Genevieve Duff; a son, Robert L. Duff, Poca; two brothers, Dr. John W. Duff, Jr., and Eugene Duff, both of Florida, and three sisters, Lessie Burdette, Thelma VanWinkle and Delta Smith, all of Charleston.

DONALD R. ROBERTS, M. D.

Dr. Donald R. Roberts, retired Elkins family physician, died July 14 at his home. He was 73.

Dr. Roberts was a former staff member of Davis Memorial Hospital in Elkins, and a Past President of the Tygart's Valley Medical Society.

He came to Elkins in 1939 but enlisted in the Army in 1941 as a regimental surgeon, serving in North Africa, Sicily, Germany, and the Battle of the Bulge in Normandy. He was in the "Fourth Wave" in Normandy and was in charge of taking over the concentration camp at Dachau. His records were sent to the Nuremberg trial.

Doctor Roberts was honorably discharged in 1945 as a lieutenant colonel, earning a Bronze Star Medal and two Oak Leaf Clusters.

Born in Mount Vernon, New York, he was graduated from West Virginia University, and received his M. D. degree in 1937 from Washington University, St. Louis, Missouri. He interned at Missouri Baptist and St. Louis County hospitals in St. Louis.

Doctor Roberts was a former President of the West Virginia Academy of General Practitioners, which preceded the present-day West Virginia Chapter, American Academy of Family Physicians. He was a charter member of the AAFP.

(Continued on Page 357)

Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8½ by 11 in.) white paper. Wide margins at least 1¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 4106, Charleston, W. Va. 25364.

New Members

The following physicians were welcomed in June as new members of the West Virginia State Medical Association:

Cabell:

William Lavery, M. D., 1151 Hal Greer Boulevard, Huntington 25071, ophthalmology

Gretchen E. Oley, M. D., Marshall University School of Medicine, 1801 6th Avenue, Huntington 25701, internal medicine

Central:

Arthur Wesley Olson, M. D., Fairview Heights Road, Summersville 26651, family practice

John D. Shank, M. D., Drawer F, 350 Fairview Heights Road, Summersville 26551, family practice

McDowell:

Regino L. Garcia, M. D., Clairmont Medical Center, Box 800, Bradshaw 24817, general surgery/general practice

Mercer:

Florencio P. Neri, Jr., M. D., 531 Quail Valley, Princeton 24740, emergency medicine/general practice

Razia Sultana Ahmad, M. D., P. O. Box 729, Bluefield 25701, pediatrics

Monongalia:

Henry L. Abrons, M. D., WVU Medical Center, Morgantown 26506, pulmonary diseases/internal medicine

Patricia J. Harrison, M. D., 1200 J. D. Anderson Drive, Morgantown 26506, family practice/emergency medicine

Norval Leroy Rasmussen, M. D., 224 Wilson Avenue, Morgantown 26505, emergency medicine

Andrew Summers, M. D., 1283 Crestwood Drive, Morgantown 26505, emergency medicine

Western:

Cynthia S. Reese, M. D., P. O. Box 369, Ripley 25271, general practice

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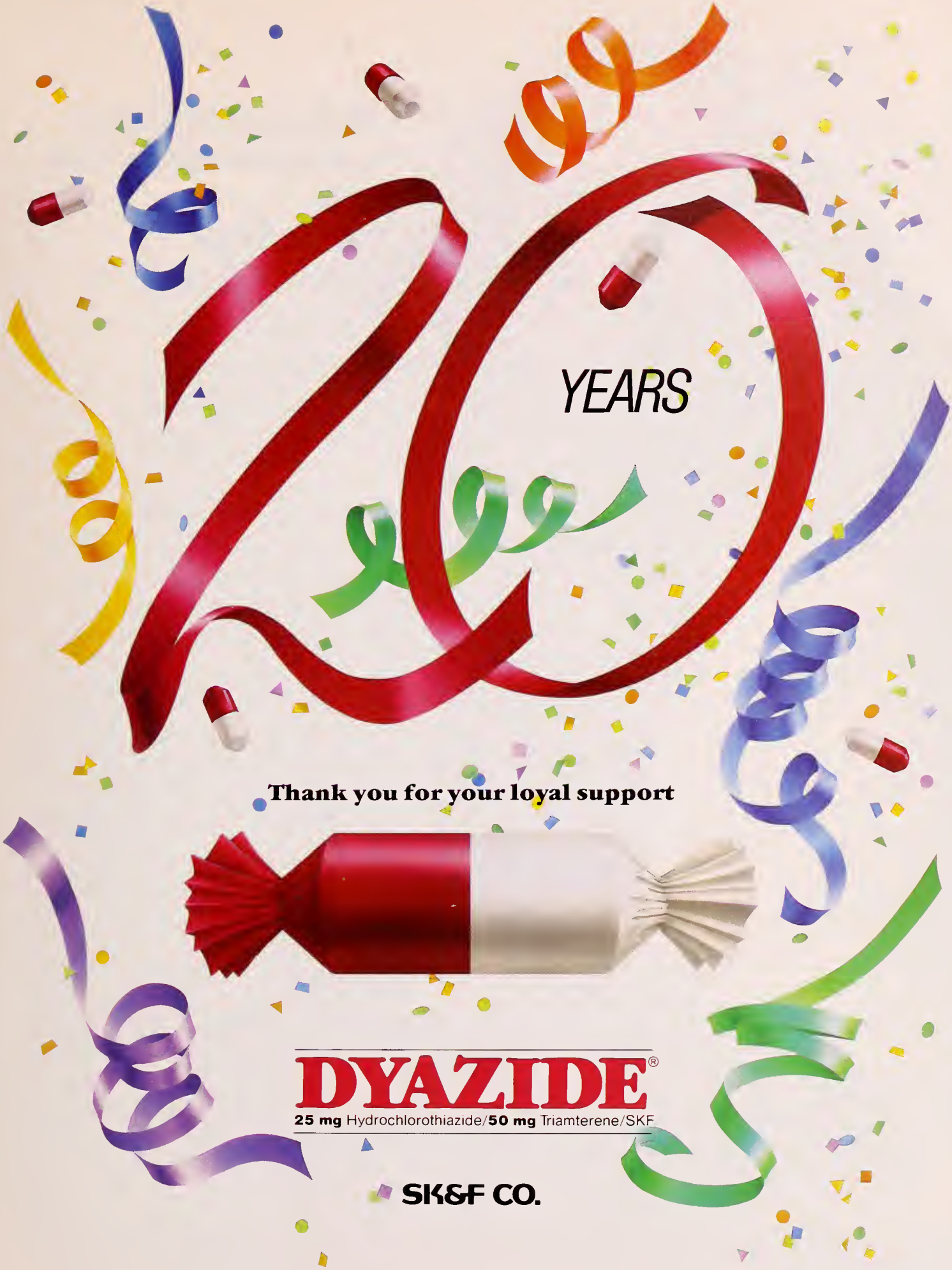
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Now the evidence looks better than ever

Significantly reduced risk of endometrial hyperplasia

Endometrial hyperplasia was significantly reduced when progestin was added to PREMARIN therapy for more than ten days a month.[1-4] The risk of endometrial hyperplasia may also be reduced through cyclic administration of unopposed, low-dose PREMARIN.

Effect on lipids—an important feature

PREMARIN used alone does not adversely affect lipid levels. In fact, a clinical study has shown a significant increase in HDL cholesterol—from 49.7 mg/dL to 56.4 mg/dL—and decrease in LDL cholesterol—from 165.1 mg/dL to 138.1 mg/dL—after one year of therapy with PREMARIN, 0.625 mg.[5]

Low-dose control of menopausal symptoms*

PREMARIN effectively relieves vasomotor symptoms, such as hot flashes. When estrogen deficiency is limited to atrophic vaginitis, PREMARIN® (conjugated estrogens) Vaginal Cream restores the vaginal environment to its premenopausal state.

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*PREMARIN is indicated for moderate-to-severe vasomotor symptoms.

Please see following page for brief summary of prescribing information.

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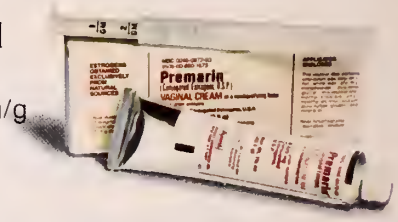

BRIEF SUMMARY *(FOR FULL PRESCRIBING INFORMATION AND PATIENT INFORMATION, SEE PACKAGE CIRCULARS.)*

PREMARIN® Brand of conjugated estrogens tablets, USP
PREMARIN® Brand of conjugated estrogens Vaginal Cream in a nonliquefying base

1 ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA

Three independent case control studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case control studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semiannual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration; it therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equiestrogenic doses.

2 ESTROGENS SHOULD NOT BE USED DURING PREGNANCY

The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a non-steroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb reduction defects. One case control study estimated a 4.7-fold increased risk of limb reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

DESCRIPTION: PREMARIN (conjugated estrogens, USP) contains a mixture of estrogens, obtained exclusively from natural sources, blended to represent the average composition of material derived from pregnant mares' urine. It contains estrone, equilin, and 17α-dihydroequilin, together with smaller amounts of 17α-estradiol, equilenin, and 17α-dihydroequilenin as salts of their sulfate esters. Tablets are available in 0.3 mg, 0.625 mg, 0.9 mg, 1.25 mg, and 2.5 mg strengths of conjugated estrogens. Cream is available as 0.625 mg conjugated estrogens per gram.

INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP): Moderate-to-severe *vasomotor* symptoms associated with the menopause. (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) **Osteoporosis (abnormally low bone mass).** Atrophic vaginitis. Kraurosis vulvae. Female castration.

PREMARIN (conjugated estrogens) Vaginal Cream is indicated in the treatment of atrophic vaginitis and kraurosis vulvae. PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use: The lowest effective dose appropriate for the specific indication should be utilized. Studies of the addition of a progestin for 7 or more days of a cycle of estrogen administration have reported a lowered incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens. (See PRECAUTIONS.) The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (See Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

WARNINGS: Long-term continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. There are now reports that estrogens increase the risk of carcinoma of the endometrium in humans. (See Boxed Warning.) At the present time there is no satisfactory evidence that estrogens given to postmenopausal women increase the risk of cancer of the breast, although a recent study has raised this possibility. There is a need for caution in prescribing estrogens for women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease, or abnormal mammograms. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement; it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Preexisting uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:

a. Increased sulfobromophthalein retention.
b. Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3; increased norepinephrine-induced platelet aggregability.
c. Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG; free T4 concentration is unaltered.
d. Impaired glucose tolerance.
e. Decreased pregnanediol excretion.
f. Reduced response to metyrapone test.
g. Reduced serum folate concentration.
h. Increased serum triglyceride and phospholipid concentration. As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

ADVERSE REACTIONS: The following have been reported with estrogenic therapy, including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow; dysmenorrhea; premenstrual-like syndrome; amenorrhea during and after treatment; increase in size of uterine fibromyomata; vaginal candidiasis, change in cervical erosion and in degree of cervical secretion; cystitis-like syndrome; tenderness, enlargement, secretion (of breasts); nausea, vomiting, abdominal cramps, bloating; cholestatic jaundice; chloasma or melasma which may persist when drug is discontinued; erythema multiforme; erythema nodosum; hemorrhagic eruption; loss of scalp hair; hirsutism; steepening of corneal curvature; intolerance to contact lenses; headache, migraine, dizziness, mental depression, chorea; increase or decrease in weight; reduced carbohydrate tolerance; aggravation of porphyria, edema; changes in libido.

ACUTE OVERDOSAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSAGE AND ADMINISTRATION:

PREMARIN® Brand of conjugated estrogens tablets, USP

1. *Given cyclically for short-term use only.* For treatment of moderate to severe *vasomotor* symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.
2. *Given cyclically.* Female castration. Osteoporosis. Female castration—1.25 mg daily, cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control. Osteoporosis—0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off).

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three-to-six month intervals.

Usual dosage range: 2 to 4 g daily, intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

References:

1. Whitehead MI, Townsend PT, Pryse-Davies J, et al: Effects of estrogens and progestins on the biochemistry and morphology of the postmenopausal endometrium. *N Engl J Med* 1981;305:1599-1605. **2.** Paterson MEL, Wade-Evans T, Sturdee DW, et al: Endometrial disease after treatment with oestrogens and progestogens in the climacteric. *Br Med J* 1980;280:822-824. **3.** Magos AL, Brincat M, Studd JWW, et al: Amenorrhea and endometrial atrophy with continuous oral estrogen and progestogen therapy in postmenopausal women. *Obstet Gynecol* 1985;67:496-499. **4.** Whitehead MI, Lane G, Siddle N, et al: Avoidance of endometrial hyperstimulation in estrogen-treated postmenopausal women. *Semin Reprod Endocrinol* 1983;1:1:41-52. **5.** Barnes RB, Roy S, Lobo RA: Comparison of lipid and androgen levels after conjugated estrogen or depo-medroxyprogesterone acetate treatment in postmenopausal women. *Obstet Gynecol* 1985;66:216-219.

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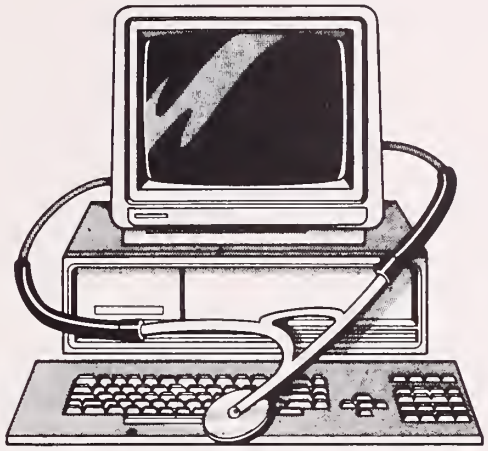

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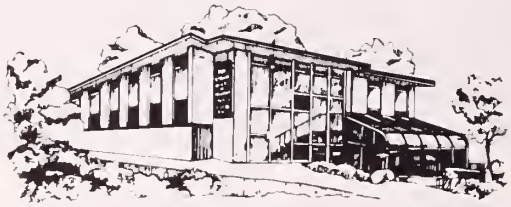

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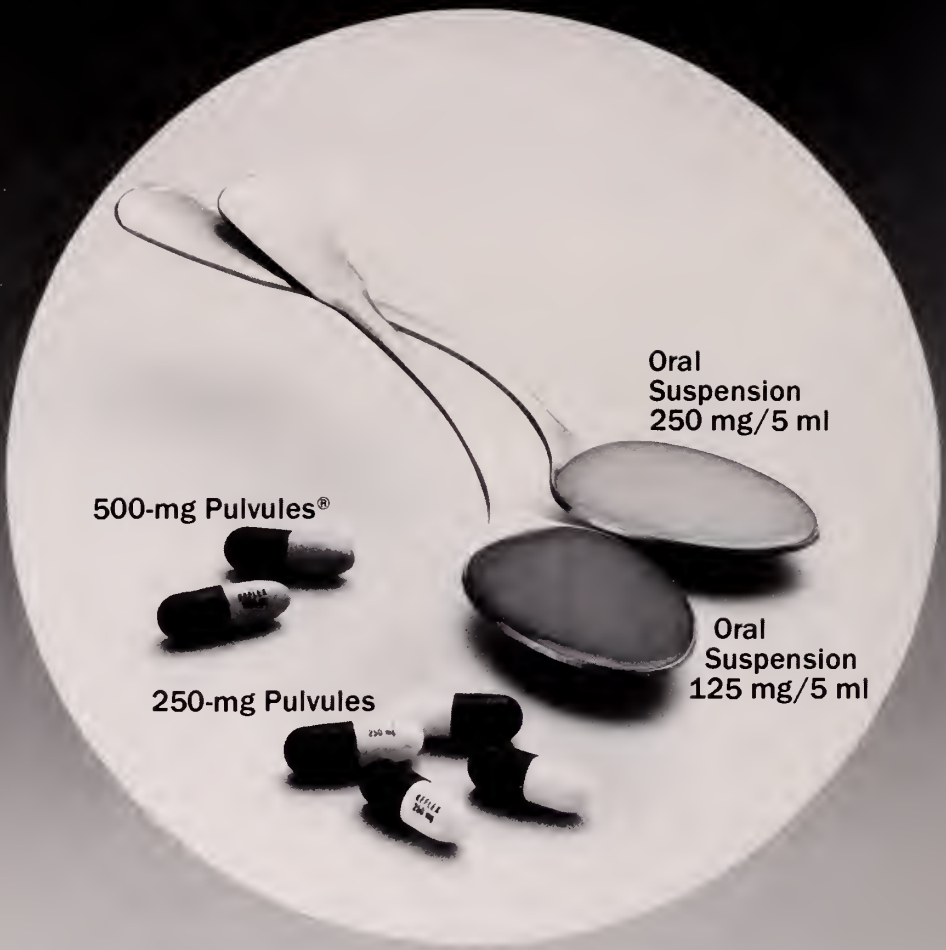

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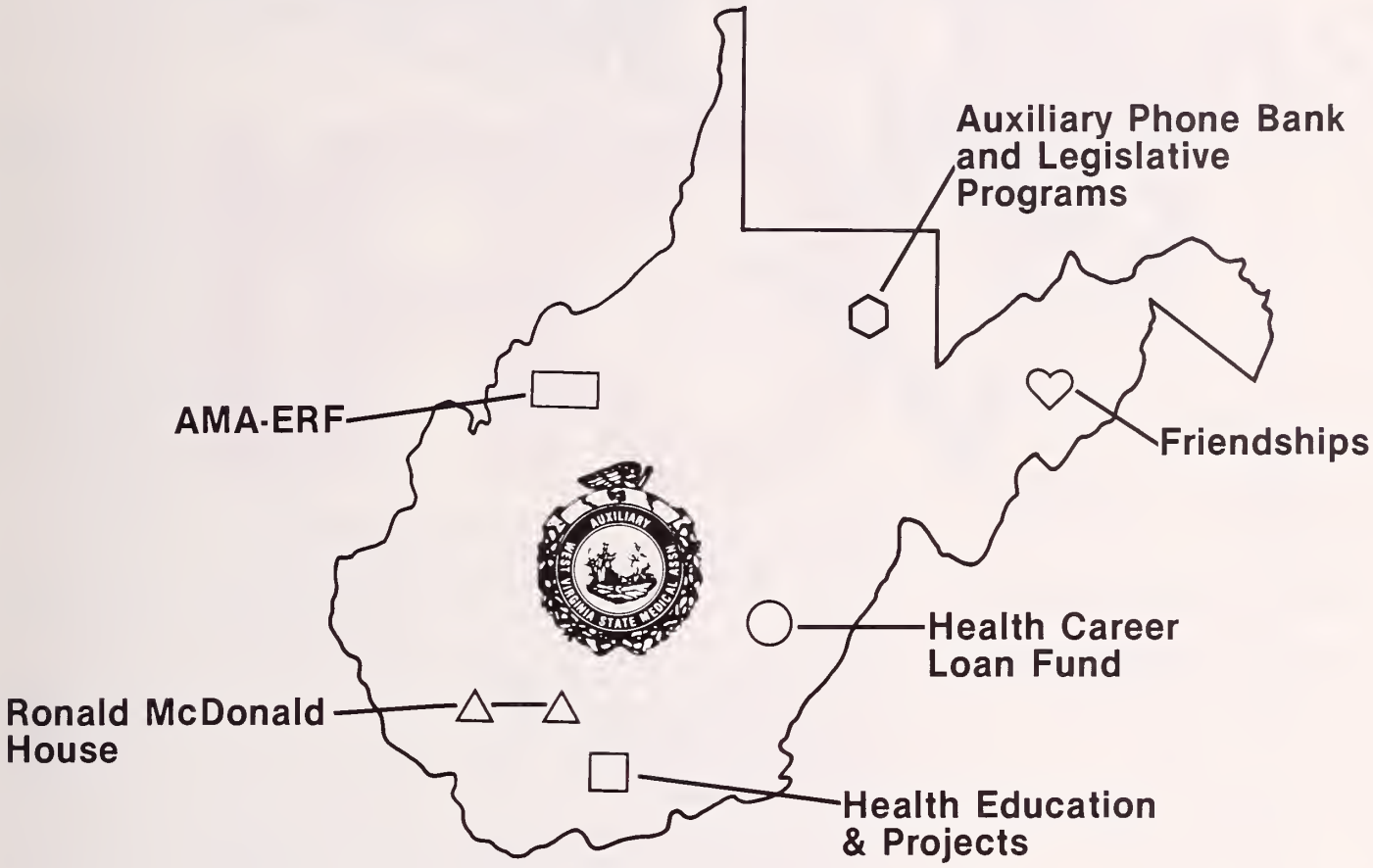

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(Continued from Page 349)

He also was an honorary member of the Tygart's Valley Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include the wife, Mrs. Margaret R. Roberts; two sons, Dr. Peter R. Roberts of Wellington, New Zealand, and Dr. Samuel K. Roberts, Elkins; and three daughters, Mrs. Margaret F. Perdue, State College, Pennsylvania; Mrs. Scottie Wiest, Elkins, and Mrs. Heather Biola of Berkley Lake, Georgia.

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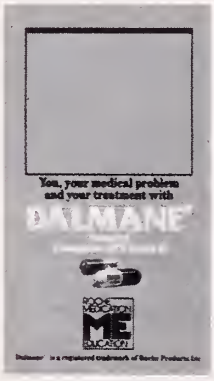

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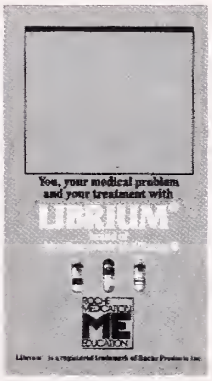

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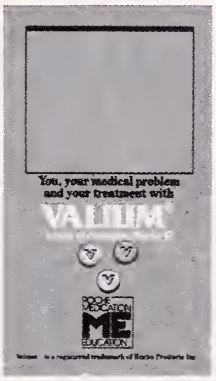

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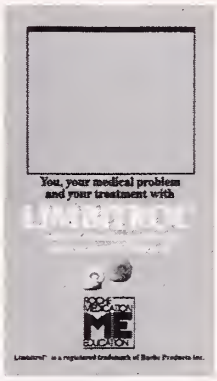

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(See President's Page — Page 382)

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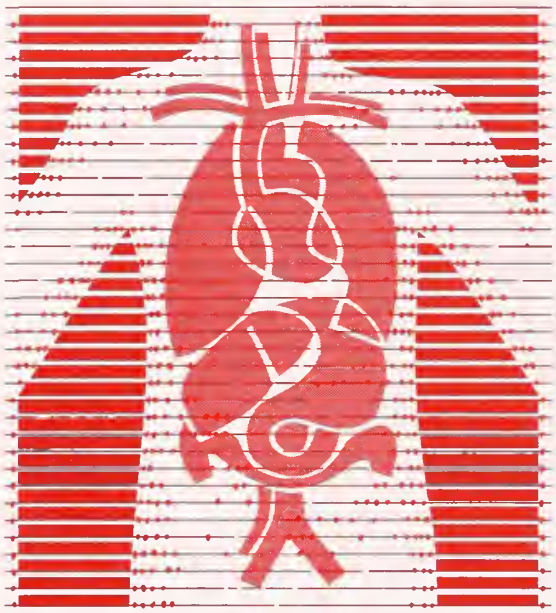

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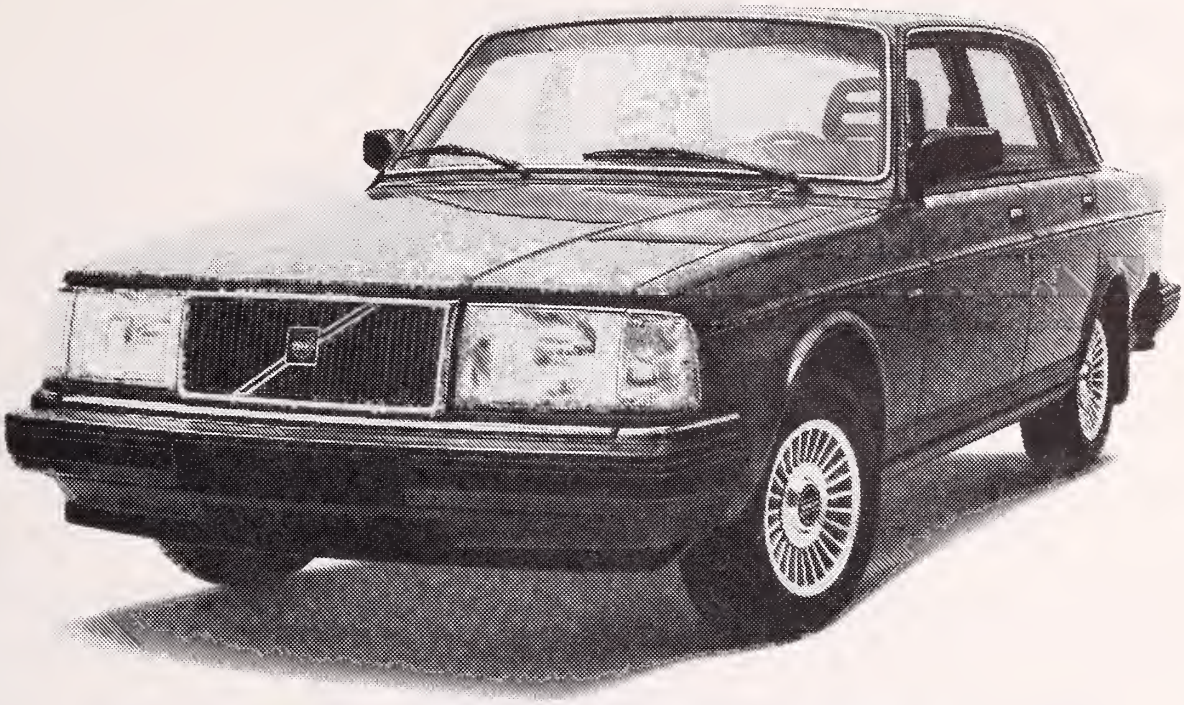

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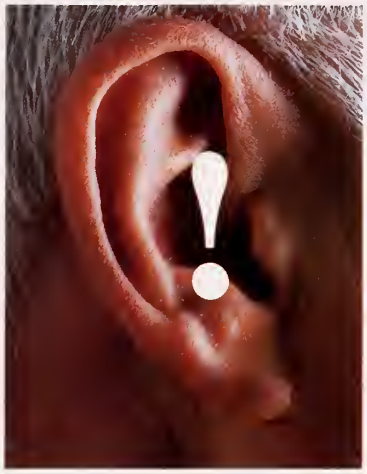

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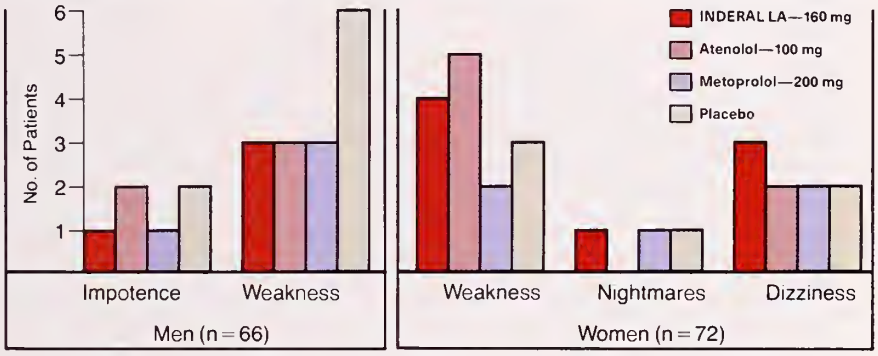

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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL® LA): Propranolol is contraindicated in 1) cardiogenic shock; 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma, 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL® LA): CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following *abrupt* discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)— PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution, since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA: Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL® LA): GENERAL: Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY: Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS: Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

Hydrochlorothiazide: GENERAL: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth; thirst; weakness; lethargy; drowsiness; restlessness; muscle pains or cramps; muscular fatigue; hypotension; oliguria; tachycardia; and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY: Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS: Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL® LA): Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia; congestive heart failure; intensification of AV block; hypotension; paresthesia of hands; thrombocytopenic purpura; arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness; mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia; visual disturbances; hallucinations; an acute reversible syndrome characterized by disorientation for time and place; short-term memory loss, emotional lability; slightly clouded sensorium; and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis; ischemic colitis.

Allergic: Pharyngitis and agranulocytosis; erythematous rash; fever combined with aching and sore throat; laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence; and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:

Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

Central Nervous System: Dizziness, vertigo; paresthesias; headache; xanthopsia.

Hematologic: Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever; respiratory distress, including pneumonitis, anaphylactic reactions.

Other: Hyperglycemia, glycosuria, hyperuricemia, muscle spasm, weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

* The appearance of these capsules is a registered trademark of Ayerst Laboratories.

REFERENCE:

1. Ravid M, Lang R, Jutrin I. The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985;145:1321–1323.

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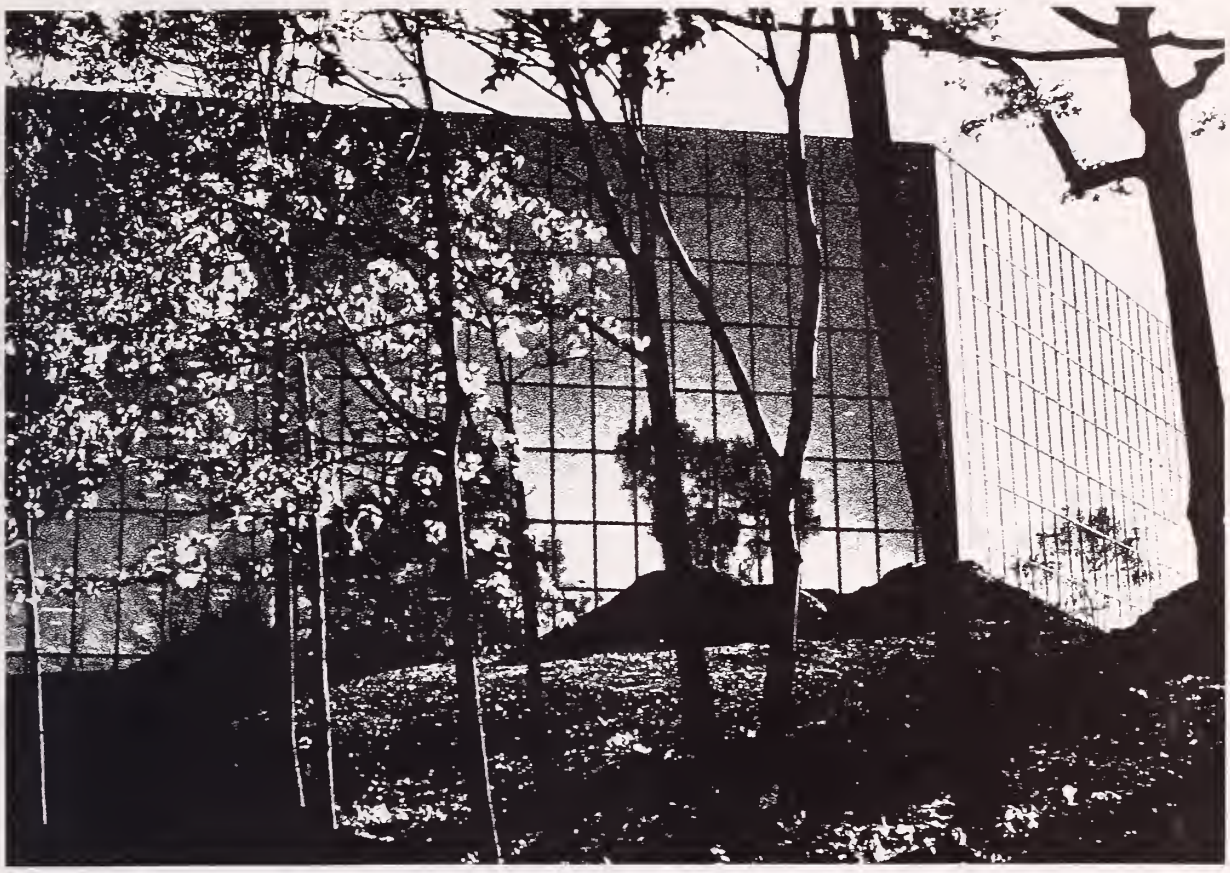

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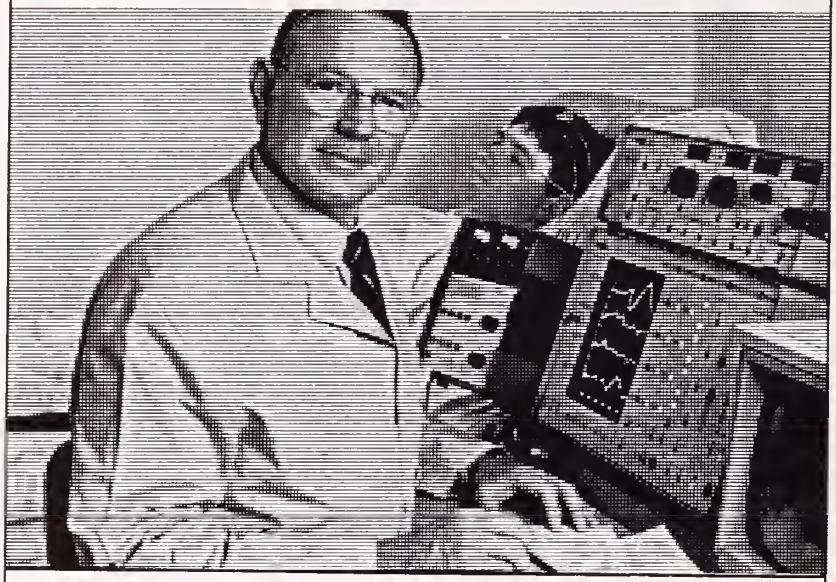

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for healed duodenal ulcer patients

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Percent of patients with observed duodenal ulcer recurrence

		0-4 months	0-8 months	0-12 months	No. patients
USA[1]	ranitidine 150 mg h.s.	9%	14%*	16%†	60
	cimetidine 400 mg h.s.	23%	34%	43%	66
UK, Ireland, Australia[2]	ranitidine 150 mg h.s.	8%‡	14%‡	23%‡	243
	cimetidine 400 mg h.s.	21%	34%	37%	241

*p=0.02
†p=0.01
‡p≤0.004
%=life-table estimates
All patients were permitted prn antacids for relief of pain.

These two trials used the currently recommended dosing regimen of cimetidine (400 mg h.s.) and ranitidine (150 mg h.s.). A comparison of other dosing regimens has not been studied.

The studied dosing regimens are not equivalent with respect to the degree and duration of acid suppression or suppression of nocturnal acid.

The superiority of ranitidine over cimetidine in these trials indicates that the dosing regimen currently recommended for cimetidine is less likely to be as successful in maintenance therapy.

Convenient once-a-night dose with a low incidence of side effects[3]

Headache, sometimes severe, seems to be related to ranitidine administration. Other side effects have been reported; for a complete listing, see the **ADVERSE REACTIONS** section in the Brief Summary.

No significant interference with the hepatic cytochrome P-450 enzyme system at recommended doses

ZANTAC 150 mg has no significant drug interactions with theophylline, phenytoin, or warfarin. The bioavailability of certain medications whose absorption is dependent on a low gastric pH may be altered when ZANTAC or other medications that decrease gastric acidity are administered.

Zantac® 150

ranitidine HCl/Glaxo 150 mg tablets

One tablet at bedtime
for maintenance

See next page for references and
Brief Summary of Product Information.

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Zantac® 150

ranitidine HCl/Glaxo 150 mg tablets

One tablet at bedtime for maintenance therapy in healed duodenal ulcer patients

References:

1. Silvis SE, Griffin J, Hardin R, et al: Final report on the United States multicenter trial comparing ranitidine to cimetidine as maintenance therapy following healing of duodenal ulcer. *J Clin Gastroenterol* 1985;7(6):482-487.
2. Gough KR, Korman MG, Bardhan KD, et al: Ranitidine and cimetidine in prevention of duodenal ulcer relapse. A double-blind, randomised, multicentre, comparative trial. *Lancet* 1984;ii:659-662.
3. Data available on request, Glaxo Inc.

ZANTAC® 150 Tablets (ranitidine hydrochloride)
ZANTAC® 300 Tablets (ranitidine hydrochloride)

BRIEF SUMMARY OF PRODUCT INFORMATION

See complete product information before prescribing. The following is a brief summary.

INDICATIONS AND USAGE: ZANTAC® is indicated in:
1. Short-term treatment of **active duodenal ulcer**. Most patients heal within four weeks.
2. **Maintenance therapy** for duodenal ulcer patients at reduced dosage after healing of acute ulcers.
3. The treatment of **pathological hypersecretory conditions** (eg, Zollinger-Ellison syndrome and systemic mastocytosis).
4. Short-term treatment of **active, benign gastric ulcer**. Most patients heal within six weeks and the usefulness of further treatment has not been demonstrated.
5. Treatment of **gastroesophageal reflux disease (GERD)**. Symptomatic relief commonly occurs within one or two weeks after starting therapy. Therapy for longer than six weeks has not been studied.

In active duodenal ulcer; active, benign gastric ulcer; hypersecretory states; and GERD, concomitant antacids should be given as needed for relief of pain.

CONTRAINDICATIONS: ZANTAC® is contraindicated for patients known to have hypersensitivity to the drug.

PRECAUTIONS: General: 1. Symptomatic response to ZANTAC® therapy does not preclude the presence of gastric malignancy. 2. Since ZANTAC is excreted primarily by the kidney, dosage should be adjusted in patients with impaired renal function. Caution should be observed in patients with hepatic dysfunction since ZANTAC is metabolized in the liver.

Laboratory Tests: False-positive tests for urine protein with Multistix® may occur during ZANTAC therapy, and therefore testing with sulfosalicylic acid is recommended.

Drug Interactions: Although ZANTAC has been reported to bind weakly to cytochrome P-450 in vitro, recommended doses of the drug do not inhibit the action of the cytochrome P-450-linked oxygenase enzymes in the liver. However, there have been isolated reports of drug interactions which suggest that ZANTAC may affect the bioavailability of certain drugs by some mechanism as yet unidentified (eg, a pH-dependent effect on absorption or a change in volume of distribution).

Carcinogenesis, Mutagenesis, Impairment of Fertility: There was no indication of tumorigenic or carcinogenic effects in lifespan studies in mice and rats at doses up to 2,000 mg/kg/day.

Ranitidine was not mutagenic in standard bacterial tests (*Salmonella*, *E coli*) for mutagenicity at concentrations up to the maximum recommended for these assays.

In a dominant lethal assay, a single oral dose of 1,000 mg/kg to male rats was without effect on the outcome of two matings per week for the next nine weeks.

Pregnancy: ***Teratogenic Effects: Pregnancy Category B:*** Reproduction studies have been performed in rats and rabbits at doses up to 160 times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to ZANTAC. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: ZANTAC is secreted in human milk. Caution should be exercised when ZANTAC is administered to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Use in Elderly Patients: Ulcer healing rates in elderly patients (65 to 82 years of age) were no different from those in younger age groups. The incidence rates for adverse events and laboratory abnormalities were also not different from those seen in other age groups.

ADVERSE REACTIONS: The following have been reported as events in clinical trials or in the routine management of patients treated with oral ZANTAC®. The relationship to ZANTAC therapy has been unclear in many cases. Headache, sometimes severe, seems to be related to ZANTAC administration.

Central Nervous System: Rarely, malaise, dizziness, somnolence, insomnia, and vertigo. Rare cases of reversible mental confusion, agitation, depression, and hallucinations have been reported, predominantly in severely ill elderly patients.

Cardiovascular: Rare reports of tachycardia, bradycardia, and premature ventricular beats.

Gastrointestinal. Constipation, diarrhea, nausea/vomiting, and abdominal discomfort/pain.

Hepatic: In normal volunteers, SGPT values were increased to at least twice the pretreatment levels in 6 of 12 subjects receiving 100 mg qid IV for seven days, and in 4 of 24 subjects receiving 50 mg qid IV for five days. With oral administration there have been occasional reports of reversible hepatitis, hepatocellular or hepatocanalicular or mixed, with or without jaundice.

Musculoskeletal: Rare reports of arthralgias.

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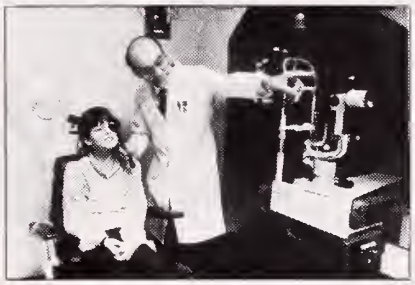

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Presidential Address*

DAVID Z. MORGAN, M. D.
Morgantown, Immediate Past President, West Virginia State Medical Association

Our primary goals last August were to (1) Lessen the professional liability crunch and to initiate the first ever tort reform measures in West Virginia, (2) To establish both the reality and perception of greater accountability of the medical profession in its care of patients, (3) To restore our rightful voice in the decisions of health care issues in West Virginia through exploring the possibility of alternatve health care delivery systems, and (4) To assist all of our members, including those who had fallen victim to substance abuse, those whose family and professional life had been interrupted by a liability suit, and those who need assistance in refurbishing their competency to deliver medical care.

*Presented at the second and final session of the House of Delegates, 119th Annual Meeting of the West Virginia State Medical Association, White Sulphur Springs, West Virginia, August 16, 1986.

In most, if not all, of these areas we have made a beginning, but only a beginning. This has been a year of crises, but it reflected the rapidly changing environment of medicine.

Over a quarter of a century ago, when many of us began our practices, we concentrated almost exclusively on taking care of patients, resenting anything that detracted from that time. There was precious little left for our families anyway.

We were generous with our funds, but not our time. We gradually lost our voice in political matters; we surrendered business decisions to administrators, MBAs and CPAs. We have often failed to take an active vote in major local issues despite the fact that many of these had an impact on the health of citizens of our own communities.

Dr. John Coury pointed out that many signers of the Constitution and Declaration of Independence were physicians. How many physicians today have such a stature in public life?

I don't intend for my remarks to be downbeat. We have nothing to apologize for, just the opposite. The people of West Virginia are served by fine physicians. One of the things that every ex-West Virginia State Medical Association president I've talked with has commented on was the outstanding dedication and character of the medical families they met in their travels throughout the state.

Re-involvement

I certainly can echo that. My comments are an earnest plea for us to re-involve ourselves in political issues, to insist on our role in the business decisions of medicine, and to commit some time to community projects for the benefit of all our neighbors.

To paraphrase a television commercial, the best thing that could be said of us is, "We get our respect the old-fashioned way — We earn it."

Looking ahead from the perspective of the past year, I can see some familiar problems and issues as well as some new ones.

The liability problem, as Governor Moore predicted, has not gone away. There does not appear to be any easy solution. I believe the action we have taken at this meeting is a step in the right direction.

"My comments are an earnest plea for us to re-involve ourselves in political issues, to insist on our role in the business decisions of medicine, and to commit some time to community projects for the benefit of all our neighbors."

We will continue to negotiate the best arrangement possible with our sponsored insurance carrier. We will, however, actively pursue the establishment of a doctor-owned insurance company, a so-called "shelf captive" which we could activate if it becomes necessary at any point such as the crisis we faced this past year. Managing our own insurance company is not a bed of roses and would require two major elements: (1) Good managers who can provide expertise in rate setting and claims management, and who have a reliable access to the re-insurance market, and (2) A no-nonsense approach on the part of the medical profession to risk management and loss control.

(Continued on Next Page)

The initial efforts of our PPO have predictably been a bit rocky as individual fee schedules have been negotiated. We are now at the place where we can offer employers a product and a strong provider group. I believe we can anticipate that interest in the Physicians Medical Care Network of West Virginia will build rapidly. It's important for physicians to realize that Mr. Stevens and his staff want to hear your concerns and that your problems with PMCN can probably be resolved if you will only communicate them.

Physician Accountability

Physician accountability is an issue which we must be concerned with. Despite some objection, opening the physician disciplinary deliberations of the Board of Medicine following the establishment of due cause is a reasonable approach providing, of course, that the Board has the resources to carry out a thorough and fair investigation.

"If we cannot carry out peer review activities in an unobstructed manner, free of a muckracking press or threats of legal action for restraint of trade, the prospects for our input in quality of medical care issues are very dim indeed."

Our newly established Judicial Commission further provides a mechanism to take action against a member who violates an ethical principle of the WVSMA or AMA.

Finally, the sanction proceedings of the PPO will provide a means for economically penalizing the physician found wanting in quality of care issues or who inappropriately admits to a hospital.

We must resist at all costs, however, recent efforts to throw all peer review proceedings open to media scrutiny. If we cannot carry out peer review activities in an unobstructed manner, free of a muckraking press or threats of legal action for restraint of trade, the prospects for our input in quality of medical care issues are very dim indeed.

I consider one of our more important actions to be the establishment of a rational method to cope with those of our members who are creating problems for themselves, their families, and their patients through the abuse of drugs and/or alcohol. Studies have shown that the rehabilitation rate among physicians can be significantly higher than the general population. Early identification and early treatment seem to be the best predictors of success. To not use some of our resources to help our fellow members who are ill from drugs or alcohol would be wrong from the humanitarian standpoint as well as diminishing our responsibility to the public.

Unless you have been sued by a patient to whom you felt you had directed all your knowledge and skills, you cannot possibly understand the anxiety, anger and frustration caused by the suit, and the toll it often takes by creating an apprehensive, tentative approach to medical practice.

The lessening enjoyment of practicing medicine and the sometimes subtle, but very real, disruptions of family life are all part of the hidden human costs of the malpractice problem. Sometimes it's difficult for our families to understand our reactions to being sued.

Liability Support Groups

Accordingly, we have been working with Jeanny Kalaycioglu and the Auxiliary to encourage the establishment of local professional liability support groups. I anticipate that the Association will be willing to provide expenses to allow one of our Auxiliary or Association members to visit a functioning support group to gain ideas how this might be adapted to West Virginia. This individual could then serve as a resource to encourage the development of, and train, such groups throughout the state.

My friends in the Trial Bar Association assured me that nothing that was done legislatively would, in any way, diminish the frequency of suits in the future and that this number would undoubtedly increase. If this is so, the importance of having functioning support groups may grow.

A few words about the Legislature. My respect for this body grew with the legislative session this past year. We have a lot of friends in the Legislature, including some members of the legal profession. They understand our problems and are willing to help. We need to present them with well-thought-out proposals which attack specific problems and are not self-serving. The trial lawyers do represent a significant obstacle to tort law change, but those who will adamantly refuse to consider any measure of tort reform are a very small, although powerfully placed, minority.

"The trial lawyers do represent a significant obstacle to tort law changes, but those who will adamantly refuse to consider any measure of tort reform are a very small, although powerfully placed, minority."

We need to do several things urgently:

1. We need to continue to be a presence in the Legislature, and I am grateful to the Association for its support in asking me to return to the Legislature this next year.
2. We must identify a few physicians and spouses who will begin the process of seeking public office; politics can be great fun. As a hobby it beats most others for excitement. There is nothing inherently unsavory about politics; there are only unsavory people.
3. We need to continue to provide some of our money to candidates. Running for office is an expensive business. One candidate for the House of Delegates pointed out to me that sending two letters to the party registrants in his county cost $8,000. Please continue your support of WESPAC.

I want to avoid being preachy — a listing of problems is easy and could occupy a couple of hours. But I've talked with you and you know the

problems as well as I — what are needed are solutions.

Overriding Issues

Nevertheless, there are a few overriding issues that we cannot avoid paying attention to. I'd like to spend a few moments talking about them.

(1) Obstetrical services in West Virginia are reaching a critical point in several areas of the state for low-income families. It would be easy and possibly even justifiable for us to turn our backs on this problem and say "The liability and reimbursement issues are such that not only must I contribute my own resources, but place myself at considerable risk of being sued in providing these services." True, but we must always be in the position in which our patients' interests are paramount. We must join to solve this growing problem. Doctor Heydinger and the Department of Human Services have appointed a task force to address this issue. Your input is needed.

(2) Uncompensated Care — Most of us continue, as we always have, to provide care for those who can't afford our services but who are not so destitute that they qualify for Medicaid. I'm certain that you can realize that this is a significant number of people — 15 to 20 per cent of the population by some estimates. It's clear that legislative efforts will be needed to help with these patients, either through tax relief to them as individuals to permit the purchase of health care or using tax dollars to assist them directly in purchasing insurance coverage. We need to be aware that this is a major issue and be prepared to help in its solution as it is debated by the Legislature.

(3) The Commercialization of Medicine — one of the dichotomies of today which creates a major image problem for the profession is that the large corporations are increasingly purchasing and marketing our services much as the local construction companies are offering home improvements. While much of this is inevitable and not necessarily all bad, it must be remembered that the dollars in this industry come from the ill, the unfortunate and the anxious, so it's not surprising that we are regarded as entrepreneurs in an industry that depends for its cash on something people don't want — bad health. Again, we must make it quite clear that we will have nothing to do with any corporate venture that does not place the welfare of our patients and the quality of their health care as its guiding principle. And, finally,

"Again, we must make it quite clear that we will have nothing to do with any corporate venture that does not place the welfare of our patients and the quality of their health care as its guiding principle"

(4) The Issue of Competition in Medicine — The market place has served America well for over 200 years and will continue to do so. For the most part, however, the professions have been free of market influences. That is changing rapidly with a growing number of health care deliverers, a wide variety of health care delivery systems and permissive federal regulations. As this intensifies, we will be subjected to competitive influences as never before. We need to maintain our integrity as a single profession, not specialist against generalist, hospital staff against hospital staff, town against gown. Let's keep our State Association strong. It can provide the forum to resolve these differences.

A few thank you's in closing. Mert Scholten has done a superb job for the West Virginia State Medical Association. I know him as a well-organized, hard-working fellow with a comprehensive understanding of the problems of medicine. He is devoted to the cause of medicine in West Virginia. Mert, I salute you and thank you for your efforts on our behalf.

Dee Crabtree taught me a lot about the Legislature, and the Auxiliary is pleased at her efforts for them. Custer Holliday continues to be the mainstay of the *Journal*, and Sue Shanklin keeps the books and keeps us all out of trouble. All of these folks are ably supported by Sheri, Candy and Patty — as competent and attractive group as you'll encounter.

No, I haven't forgotten Mary Hamilton. While the rest of us are hogging the glory, this sweet lady is really doing the work.

In summary, we've got a lean staff, but they are outstanding.

This has been a good year owing largely to the tremendous support from all of you and the Auxiliary. The Executive Committee and the Council have put us in a forward moving trail, one which we will stay on.

My wife and family have helped me throughout the year, and my colleagues at West Virginia University have been very understanding in allowing me time to do the Association's work. The Monongalia County Medical Society kept me from becoming too impractical in my approaches.

Charles and Linda Turner will provide excellent leadership for the coming year. They have my full support. I know they also have yours.

Current Status Of Cardiac Electrophysiologic Testing

STANLEY B. SCHMIDT, M. D.
ABNASH C. JAIN, M. D.
Section of Cardiology, West Virginia University Medical Center, Morgantown

This article reviews the current role of intracardiac electrophysiologic testing in managing patients with various arrhyhmias. Indications for testing in patients with unexplained syncope, ventricular and supraventricular arrhythmias, and in those who have been resuscitated from near sudden death are discussed.

Invasive assessment of the disturbances of cardiac rhythm and conduction using electrophysiologic techniques has become a well-established practice; and can be very useful in determining the presence, mechanism and therapy of various cardiac dysrhythmias. Primary care physicians should be familiar with the indications for electrophysiologic testing so that optimal use can be made of this procedure.

Technique

At the start of the procedure several multielectrode catheters are introduced percutaneously and positioned fluoroscopically within the cardiac chambers (Figure 1). Heparin is given to reduce the risk of thromboembolic complications. Through these electrode catheters, multiple simultaneous recordings can be made which provide detailed information about cardiac rhythm and conduction. While data about baseline cardiac electrical activity can be very useful, most electrophysiologic studies also include electrical pacing of the heart to uncover disturbances of rhythm or conduction which are inapparent during baseline observation (Figure 2). When arrhythmias are inducible, the effectiveness of antiarrhythmic drugs in preventing the arrhythmia also can be tested.

Unexplained Syncope

Syncope or near syncope is a common problem. Its causes are numerous and range from the benign to the life-threatening. The history, physical examination, and a few simple laboratory tests usually suffice to establish a diagnosis. Twenty-four-hour ambulatory EGG (Holter) monitoring can also be helpful, but in patients with infrequent symptoms more prolonged monitoring may be necessary.

Figure 1. Radiograph of multielectrode catheters positioned in the coronary sinus, right ventricle apex, and near the His bundle.

Patients whose noninvasive evaluations are inconclusive should be considered for electrophysiologic testing. Studies have shown a diagnostic yield in this setting of up to 56 per cent for this procedure, with unanticipated tachyarrhythmias, conduction, disturbances, and sinus node dysfunction being the most frequent abnormalities.[1] Treatment on the basis of the electrophysiologic findings alleviates symptoms in the majority of cases.

Patients with symptoms due to known bradyarrhythmias and atrioventricular blocks rarely need electrophysiologic testing, and can be referred for a pacemaker on the basis of the noninvasive findings.[2] In some equivocal situations, electrophysiologic study can provide additional information such as documentation of significant HV prolongation which can be useful in making a decision about pacemaker implantation.

Ventricular Tachycardia

One of the most frequent indications for electrophysiologic testing is the assessment of patients with ventricular tachyarrhythmias. Provocative testing can be used to select the most appropriate antiarrhythmic drugs in these patients,[3] and often provides substantial savings in both time and money compared to prolonged noninvasive drug testing with repeated Holter monitoring and exercise testing.[4] In addition, electrophysiologic testing provides the only practical means of antiarrhythmic selection in patients with very infrequent arrhythmias, in whom the apparent absence of arrhythmia while on a drug cannot be equated with therapeutic success. The reliability of electrophsyiologic testing in guiding drug therapy for ventricular tachyarrhythmias has been confirmed in a number of studies.[3]

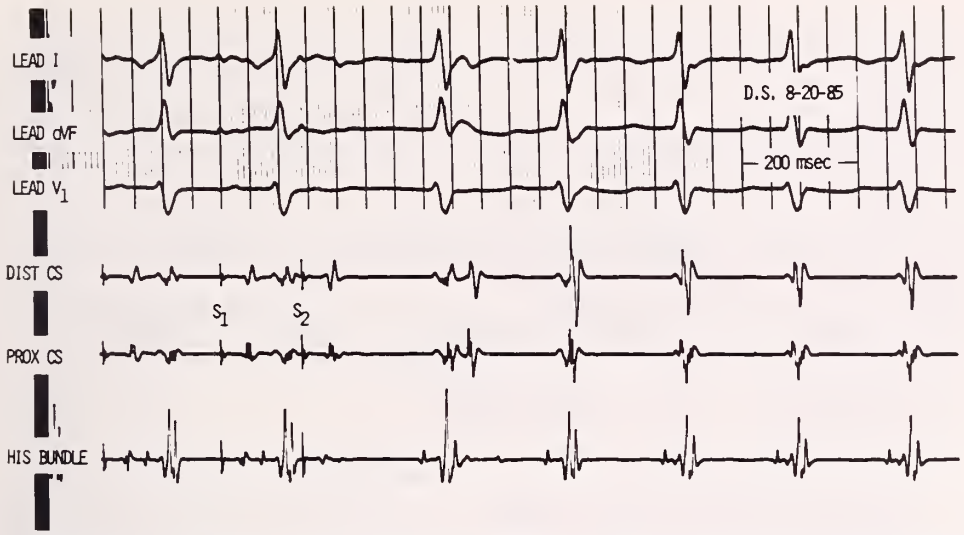

Figure 2. Typical electrophysiologic recording showing initiation of reentrant tachycardia by pacing stimuli (S_1 and S_2) in a patient with Wolff-Parkinson-White Syndrome.

Electrophsyiologic testing is also useful in the differential diagnosis of wide complex tachycardias, which may represent either ventricular tachycardia or supraventricular tachycardia with aberrant ventricular conduction.

Finally, electrophysiologic testing can be useful in assessing the prognosis of ventricular arrhythmias, hence the need for treatment. While this remains a controversial area, most studies support the impression that the results of electrophysiologic testing are prognostically meaningful, and we occasionally study patients for the specific purpose of determining the need for pharmacologic therapy.

Supraventricular Tachycardias

Electrophysiologic testing has produced a wealth of information about the supraventricular tachycardias, and it has dramatically increased our understanding of the mechanisms which underly these disorders. At present, however, only a small minority of patients with supraventricular tachycardias need to undergo electrophysiologic testing as part of their clinical management. In most cases, diagnostic and therapeutic decisions can be based on noninvasive data.

In our practice, the most common reason for invasive study in these patients is the presence or suspicion of an accessory pathway, as in the Wolff-Parkinson-White (WPW) syndrome.[5] Electrophsyiologic testing should be considered whenever antiarrhythmic therapy is contemplated in WPW because drugs may have unpredictable or deleterious effects on the conduction of the accessory pathway, and may thereby facilitate, rather than prevent, serious arrhythmias in these patients. Patients who have evidence of accessory pathways capable of rapid conduction from atrium to ventricle are at risk of sudden death, and should also undergo electrophysiologic testing. If there is uncertainty about the need for invasive evaluation, consultation is advised.

Sudden Death Survivors

A significant minority of patients resuscitated from a cardiac arrest survive to be discharged from the hospital. Those who are successfully resuscitated stand a 25-per cent risk of recurrence within the following year unless properly treated.[6] Several studies have shown that electrophysiologic testing provides an effective means of determining the best antiarrhythmic therapy in these patients and that this therapy significantly improves their survival.[7,8] Survivors who remain inducible on all drugs should be considered for implantation of the recently released automatic internal cardioverter-defibrillator (AICD).[9] We believe that the electrophysiologic approach is the optimal means of determining therapy in these patients and would strongly recommend consideration of electrophysiologic testing in all sudden death survivors.

Contraindications and Risks

There are few, if any, absolute contraindications to electrophsyiologic testing. Patients suffering from unstable angina, decompensated congestive heart failure, critical aortic stenosis, or serious underlying medical illnesses should have these conditions treated before undergoing electrophysiologic study. No particular ejection fraction precludes testing, and patients with ejection fractions as low as 10-15 per cent have been studied safely while on proper anticongestive therapy.

The risks of electrophysiologic testing are extremely small. This may be considered surprising in view of the population studied and the fact that induction of sustained ventricular arrhythmias is one of the diagnostic end points of the procedure. The very low mortality and morbidity can be attributed to the carefully controlled and monitored environment in which these studies are performed. Serious arrhythmias are interrupted in seconds after their onset with pacing or external cardioversion, and our own experience of safety mirrors the published experience of other institutions.[10]

Future Developments

Several centers are using electrophysiologic techniques to map the sites of origin of refractory atrial and ventricular arrhythmias and then using surgical excision to remove the arrhythmic foci.[11] Preliminary results with these techniques have been encouraging in selected patients, and it

TABLE

Indications for Electrophsyiologic Testing

Usually Indicated:
Near sudden death
Sustained ventricular tachycardia
Unexplained syncope
Most WPW
Sometimes Indicated:
Nonsustained ventricular tachycardia
Wide-complex tachycardia
Usually Not Indicated:
Most bradyarrhythmias and blocks
Most supraventricular tachycardias (except with WPW)

is likely that use of these procedures will become more widespread. Studies are also being conducted using high-energy electric currents delivered through electrophysiologically positioned transvenous wires to ablate arrhythmic foci. Thus far, the largest experience with electric ablation has been in supraventricular arrhythmias which involve the AV node, but ablation of ventricular arrhythmias and accesory pathways is also being studied.[12]

Summary

In less than 20 years electrophysiologic testing has evolved from a purely research technique to a practical and widely used clinical tool in the management of patients with cardiac arrhythmias. Its relative usefulness in various clinical settings is summarized in the Table. Primary care physicians should be familiar with these indications so that optimal benefit can be derived from this valuable test.

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For The Patient With An Obscure Bleeding Disorder

Factor IX Deficiency And Frugal Method Of Analysis

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In West Virginia, persons with bleeding disorders can be evaluated in one of three comprehensive hemophilia centers located in either Charleston, Morgantown or Huntington. Such centers can confirm the diagnosis with expensive assays for base-line clotting factor deficiency levels. This report describes a case study and a cost-effective method of analysis using the history, physical, and simple laboratory tests to evaluate the patient with a bleeding disorder, the cause of which is unknown.

In West Virginia, 143 patients were registered with the State Hemophilia Program from 1981 to July, 1984.[1] Because of this program, many hemophiliacs in this state can enjoy better lives with opportunities for education and employment. The total cost of supporting such a program, however, is enormous, increasing from $2,506.92 in 1981-82 to $100,927.83 in 1983-84.[1] Most of the cost results from the use of blood products. These costs are relatively fixed but diagnostic costs are not. In this paper we describe a cost-effective method of analysis that can be used to evaluate a patient with an obscure bleeding disorder by using the history, physical, and simple laboratory tests instead of expensive clotting factor assays. A representative case of hemophilia is presented.

*Article written while the author was a fourth-year medical student at West Virginia University School of Medicine, Morgantown.

Case Report

A 16-month-old white male with known Factor IX deficiency was brought to the West Virginia University emergency room with a history of intermittent bleeding from the upper lip for four days. The child had fallen down two steps, sustaining a 1.5-cm knot on the occiput and a 0.5-cm laceration in the oral frenulum. The parents denied any other trauma or LOC and indicated that the bleeding had stopped within five minutes. The boy, however, continued to ooze blood every few hours over the next three days despite treatment with amicar (1000 mg. p. o. q6°) by his local physician.

On examination, vital signs were pulse 160/min, respiratory rate 29/min, blood pressure 90/50, and rectal temperature 36.8°C. Weight gain from birth had been normal. The patient was pale and poorly hydrated but without rash, petechiae, or cyanosis. Cardiac examination revealed a I/VI systolic ejection murmur heard best at the left lower sternal border. Rectal stool was heme positive. The hematocrit was 5.2 per cent; the WBC 14,000/mm^3 with 69 per cent polys, 23 per cent lymphs, four per cent bands, and four per cent monos; the prothrombin time 11.0 sec; the partial thromboplastin time 32.5 sec; and the platelets adequate.

A diagnosis of moderate anemia resulting from Factor IX deficiency and subsequent trauma to the oral frenulum was made, and the child was admitted. He was treated with amicar (140 mg/kg bolus and 100 mg/kg

TABLE 1.

Clotting Factor Disorders: History, Physical, Laboratory Analysis, Treatment

	H & P	*LAB*	*TX*
F VIII Deficiency Classic Hemophilia Hemophilia A 80% of hemophilia F VIII 1/10,000 males	X-linked recessive most show no bleeding during neonatal/infancy bleeding by 3-4 yrs. as hemarthrosis in elbows, knees, ankles	PTT and PCT ↑ corrected in vitro by n1 plasma absorbed c̄ barium sulfate but not serum n1 plt, plt count, plt aggregation	trauma prevention FFP 1ml - 1 unit F VIII 1 unit/kg ↑ plas lev 2% for soft tiss but not surg bleeds (give 10-15 ml/kg q 12° with limit of 30 ml/kg in 24°) Cryoprecipitate (20x conc) Lyophilized (20-100x conc)
F IX Deficiency Christmas Disease Hemophilia B 15% of hemophilia	X-linked recessive clinically same as Hem A	PTT and PCT ↑ correct in vitro by serum but not plasma n1 plt, plt count n1 plt aggregation	trauma prevention FFP 1 unit/kg ↑ plas lev 1% for soft tiss but not surf bleeds (give 10-15 ml/kg q 12°) Cryoprecipitate Lyophilized
F XI Deficiency Hemophilia C	autosomal dominant mostly epistaxis	PTT and PCT ↑ corrected by plas & ser	FFP 10-15 ml/kg q 12°
F XII Deficiency Hageman Factor Def	autosomal recessive no clinical abnormalities	PTT and PCT ↑	
von Willebrand's Dis (VWD) Vascular hem	autosomal dominant epistaxis, gingival and GI bleeds, easy bruising	PTT and PCT ↑ n1 PT and plt count abn ristocetin-induced plt aggregation F VIII ↓	FFP 10 ml/kg single dose Cryoprecipitate
Hemorrhagic Dis of Newborns (HDN)	bleeding from any site c̄ any degree of severity presents usually c̄ melana, umbilical bleed, or hematuria 2nd or 3rd day of life more frequent in breast-fed than formula/cow's milk-fed (due to low levels of vit K)	↓ vit k → ↓ II, VII, IX, X PTT, PCT, and PT ↑ n1 plt count, fibrinogen	Prophylaxis 0.5 - 1.0 mg natural vit K or vit K oxide 1M to all newborns at birth Corrective: 1-2 mg colloidal susp vit K 1M + FFP 10 ml/kg
Congenital Afibrinogenemia	autosomal recessive no spontaneous hemorrhage or hemarthrosis but severe bleeds following trauma	TT ↑	Fibrinogen conc 100mg/kg single dose
F XIII Deficiency Fibrin Stabilizing Factor	bleeding after separation of umbilical cord stump GI, intracranial, and intra-articular hemmorrhage	coagulation studies n1 abnormal solubility of clot in 5H urea	F XIII

q6° infusion), Factor IX concentrate (56u/kg IV), and two units of packed RBCs. After two days the patient was discharged in good health and has continued to do well on followup.

Comment

The above case is not a diagnostic dilemma. The child, however, who presents with a similar episode but no prior history can be a management problem. There are several key points in the history, physical, and laboratory analysis that will help to guide therapeutic decisions.

Bleeding disorders can occur as the result of abnormalities in two areas: clotting factors and/or platelets. Problems with platelet disorders include: deficiencies of F VIII, IX, XI, XII, or XIII; von Willebrand's Disease (VWD); Hemorrhagic Disease of the Newborn (HDN); congenital afibrinogenemia; and DIC. Difficulties with platelet function include: hypersplenism, drug-induced thrombocytopenia, and ITP.

With respect to the history and physical (Tables 1 and 2[2,3]), deficiencies in both F VIII and F IX have the same clinical presentation with bleeding occurring by age three or four in the form of hemarthrosis of elbows, knees or ankles. With the exception of minor bleeding following circumcision, these abnormalities do not manifest themselves in the newborn. Hemorrhage at this age would be indicative of F XIII deficiency or HDN. The latter usually occurs on the second or third day of life. Uncontrolled epistaxis would be indicative of VWD, F IX deficiency, or ITP with the former including gingival bleeding and easy bruising with the latter accompanying a viral or exanthem infection with petechiae or purpura. A history of no spontaneous hemorrhage or hemarthrosis but severe bleeding following trauma would be suggestive of congenital afibrinogenemia.

Factor XII deficiency has no clinical abnormalities since the clotting cascade can be initiated by F XI as well. Likewise, hypersplenism usually does not cause bleeding unless severe. Drug-induced thrombocytopenia results from bone marrow suppression or increased peripheral destruction, and may be initiated by one or more of the following: thiazides, furosemide, trimethoprim, tolbutamide, thioridazine, quinidine, phenylbutazone, sulfonamide, penicillin, digoxin, or TCAs. DIC, manifested by bleeding and peripheral thrombosis, is beyond the scope of this report.

Laboratory Evaluation

At this stage in the analysis, laboratory evaluation can be very useful.[2,3] For an in-depth discussion of the clotting cascade, the reader is referred to a standard textbook of pediatrics. With the exception of DIC, all clotting abnormalities mentioned above have normal platelets and normal platelet counts. The partial thromboplastin time (PTT) and the prothrombin consumption time (PCT) are prolonged in the following disorders: deficiencies of F VII, IX, XI, XII; VWD; and HDN. Factor XII deficiency need not be considered here since there are no clinical abnormalities. Von Willebrand's Disease will show an additional abnormal ristocetin-induced platelet aggregation while Hemorrhagic Disease of the Newborn will demonstrate a prolonged prothrombin time (PT).

To differentiate deficiencies of F VIII, IX, and XI in the laboratory, additional tests must be conducted. One needs to divide the patient's sample of blood into three separate fractions and add the following: (i) normal plasma absorbed with barium sulfate (contains F VIII and XI), (ii) normal serum (contains F IX and XI), and (iii) both (i) and (ii). Rectification of an abnormal test result with plasma alone reveals F

TABLE 2

Platelet Disorders: History, Physical, Laboratory Analysis, Treatment

	H & P	*LAB*	*TX*
Drug-induced thrombocytopenia	BM ↓ – thiazide, furosemide trimethoprim, tolbutamide, thioridazine PERIPH DEST ↑ – quinidine, phenylbutazone, sulfonamide, penicillin, dig, TCA		withdraw drug prednisone 1-2 mg/kg/day x 1-2 wks to ↑ vasc stability plt trans if plt < 200,000/mm³
ITP unknown etiology	60% S/P viral infection 15% S/P exanthem petechiae, purpura, epistaxis	n1 H/H - WBC plt count < 50,000/mm³ large plt BM c ↓ megakaryocytes and eosinophilia	most do well without tx prednisone 4-6 mg/kg/day x 2 days then 2 mg/kg/day x 2 wks splenectomy
Hypersplenism	usually mild and usually does not cause bleeding	plt > 25,000/mm³ anemia, neutropenia	splenectomy curative

VIII deficiency while correction with serum alone shows F IX deficiency. If both serum and plasma are corrective, the deficiency is F XI.

The PTT and PCT are normal in these disorders: congenital afibrinogenemia, F XIII deficiency, hypersplenism, and ITP. Congenital afibrinogenemia, however, will show a prolonged thrombin time (TT). The sample from a patient with F XIII deficiency will demonstrate abnormal solubility of the clot in 5M urea. Both hypersplenism and ITP often will show platelet counts of less than 40,000/mm^3, but the former will also demonstrate anemia and neutropenia while the latter will show large platelets on peripheral smear.

Treatment[2,3] for the clotting factor deficiencies involves trauma prevention, FFP, and the addition of the correct deficient factor. Hemorrhagic Disease of the Newborn can be both treated and prevented with the addition of vitamin K. Congenital afibringenemia, hypersplenism, drug-induced thrombocytopenia, and ITP can be treated with fibrinogen concentrate, splenectomy, prednisone, and prednisone/splenectomy, respectively.

Summary

In summary, by using the history, physical, and simple laboratory tests instead of expensive clotting factor assays or referring to a comprehensive hemophilia center, one can accurately diagnose and treat persons with obscure bleeding disorders. Such cost-effective, diagnostic workups will allow more money to be used for expensive blood products; thus, more hemophiliacs in West Virginia will be able to enjoy better lives with opportunties for education and employment.

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3. Vaughan VC, McKay RJ, Nelson WE, eds. Nelson textbook of pediatrics, 10th ed. WB Saunders Co, 1975.

Smoke-Free Society AMA's Goal

The AMA will pursue federal legislation to raise the federal excise tax on cigarets and to have those increased revenues apportioned to Medicare, as a result of a 12-point policy adopted by the House of Delegates last June.

The multi-issue policy is aimed at strengthening Association efforts to achieve a smoke-free society by the year 2000. To carry out these policies, the Association will develop "an appropriate body" for coordinating and centralizing its efforts.

In addition to pursuing federal legislation, AMA actions will include:

– Endorse the passage of laws, ordinances, and regulations that would prohibit smoking in public buildings and facilities, prohibit vending-machine sales of cigarets and tobacco products, and set the minimum legal age for purchasing tobacco products at 21.

– Endorse legislation to prohibit smoking and the sale of tobacco products in health care institutions.

– Develop and endorse legislation calling for a smoking ban on all commercial airline flights within the continental United States.

– Prohibit smoking at all meetings sponsored by the AMA.

President's Page

Friendships and Coalitions

Post-Convention Thoughts

The One Hundred and Nineteenth Annual Convention of the West Virginia State Medical Association is now history. It seems to me that everyone had a good time. Renewing old friendships and beginning new ones are among the nicest "events" at our Annual Meeting.

Long hours in meetings for the officers, staff and Council were interspersed with well-presented scientific sessions. There was enough time to enjoy the splendid recreational facilities of the Greenbrier by everyone. Even our esteemed Past President, Doctor Morgan, and our Past Council Chairman, Doctor Roncaglione, found time for golf. No matter what they say, Carl, it really was not rigged when you won the low net. You had the strokes to prove it.

The elegant surroundings of the Greenbrier and its amenities provided a welcome setting for physicians and their families to pursue the serious issues facing our profession.

In our deliberations, many issues were identified which require our careful consideration. I will, on this page in future issues, address many of them including professional liability tort reform, availability and cost of malpractice insurance, peer review, alternate health care delivery systems, health care for the medically indigent and aged, and issues of quality assurance. To be successful in confronting these issues, we will need friends — friends in our home towns and friends in the Legislature—who will carefully listen to Medicine's side of the issue. Friends and friendships are the basis of coalitions. Coalitions are developed for addressing the important issues of the day and are built upon mutual respect and commitment to shared goals.

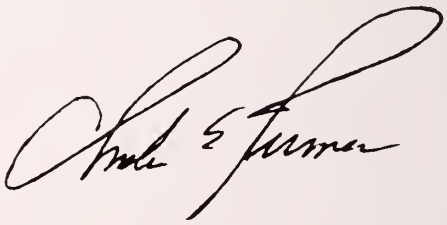
Organized Medicine has chosen, in general, to take public positions only on issues directly related to the practice of Medicine. In my judgement, we need to broaden our public position to support the vital issues of the day in our State. Certainly, these issues include the challenges of providing quality education for our children from pre-school through the graduate programs. These concerns include teachers and teachers' salaries, curriculum planning including health issues and sex education, and capital improvements for our aging and, in some instances, inadequate educational facilities. These needs are critical now. We must work with our local and state governments to find a way to meet these challenges.

Furthermore, the continuing problems faced by our business and labor communities who are trying to bring economic recovery and prosperity back to our State invite, and indeed require, our attention. These problems and challenges are too great and too important to be left to others.

Some will say "Why get involved in these issues when we are having pressing issues in organized Medicine?" Granted, we have pressing issues in Medicine but we cannot solve them alone. If we expect others to see our issues and help us, we must be involved in *their* issues. Organized Medicine, in my judgement, cannot afford the luxury of being one-dimensional—only working for, and seeing, issues which directly affect the practice of Medicine.

By rolling up our sleeves, carefully thinking out our positions, and then publicly committing ourselves to backing the necessary changes and reforms in the area of education and economic recovery, we can convince our friends and neighbors in West Virginia that organized Medicine is indeed concerned with the quality of life of all of the citizens of our State. It can be upon this foundation that strong friendships and coalitions can be built. Such coalitions will serve us and our friends well for years to come.

Let me know what you think about these ideas.



Charles E. Turner, M. D., *President*
West Virginia State
Medical Association

Looking Ahead

"Doctors, are you tired of the MALPRACTICE situation in West Virginia?," asks the headline on a flier widely circulated in late August to West Virginia physicians.

The invitation is to get away from it all by going to work for Humana Hospital McFarland in Lebanon, Tennessee, where you will enjoy various benefits, including free rent for a year, and a "favorable malpractice climate."

Whether or not working for a corporate entity like Humana is ultimately appealing for many physicians remains open to question, of course, but living and working in a "favorable malpractice climate" (whatever that means) is certainly most appealing.

It is interesting to observe that a major health corporation has chosen a marketing technique aimed specifically at West Virginia's highly visible professional liability insurance situation. Capitalizing on the continuing discontent of doctors with the liability problem might be smart marketing in a recruitment effort, but it also reminds us that the scavengers are never far away from the carrion.

This recruiting effort causes us to look to the future and reminds each of us of the need to redouble our efforts to obtain a stable professional liability climate in West Virginia through both legislative and educational means. We deeply appreciate what our friends and supporters in the Legislature were able to do in the past session. We've made an important beginning, but there is much more to do. WVSMA is firmly committed to seeking further refinements and additional provisions in the legislation obtained earlier this year.

And while we're at it, let us clarify a widely misunderstood point which our opponents have used to attack Doctor Morgan's integrity. Delegate James Humphreys, (D)-Kanawha, attacked Doctor Morgan in a scathing denouncement in the Charleston Gazette for not "living up to his agreement not to return to the Legislature for more tort reform if SB-714 was passed." What he and other critics have done was to tell only part of what was really said on the steps of the Senate at 11:15 P. M. on the final night of the session.

To explain, let's set the scene. When WVSMA began lobbying last January for some meaningful tort reform, virtually all "experts" in the process gave us no chance of succeeding. They allowed that municipalities might get some sort of relief, but that would be it.

Doctor Morgan's presence obviously changed a lot of thinking as he diligently trudged the halls of the Capitol meeting many legislators in their offices or catching them outside a committee meeting. His openness, friendliness and persuasiveness obviously prevailed. While the final version of SB-714 fell far short of where we would like to have been, it was the considered opinion of all directly involved with the effort that it was the best that could be garnered out of a difficult situation. It was under these circumstances that Senator Truman Chafin, (D)-Mingo, at the midnight hour asked Doctor Morgan, "Doctor, if we agree to this bill and pass it, will you promise not to be back here next year asking for more tort reform?"

Doctor Morgan's response was, "Yes, I will not personally be back asking for more reforms PROVIDING that nothing unusual or untoward happens which creates a further crisis." The last 12 words of this sentence have been conveniently ignored by our legislative critics. The threatened pullout of virtually the bulk of the insurance market in May was certainly a crisis situation which dictated further active involvement. Yet Doctor Morgan was attacked as not being a "man of honor" or a "man of his word" upon his return to the special session in May.

It strikes us as peculiar in the first place that an elected representative of the people should even seek to suggest that a citizen relinquish his right to petition government for redress for a one-year period.

Ideally, one would hope to find answers in the private sector outside the legislative arena, but the only answers may be in somehow modifying the various applicable laws. The quid pro quo in the legislative process, however, is always a compromise — each side gives up something it might desire. The question is the apron strings attached to any legislation. If physicians get something, the question is what obligations will they contract with the governmental process?

The liability situation is still far from being solved; much remains to be done, and WVSMA will be "back at it" come January. — MGS

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The Greenbrier Decision

Council has made the decision to return the WVSMA annual meetings to the Greenbrier (see story in News Section).

The experiment was tried. The 1985 Annual Meeting was held in Charleston, and it was far from a failure.

Attendance was slightly higher in Charleston. Understandably, there were more "walk-ins" by Charleston area doctors attending a single session or specialty meeting but the basic configuration of doctors who usually come to the WVSMA conventions seemed about the same.

Costs for the individual doctor probably were lower in Charleston but the costs for the Association were significantly higher. Separate facilities for the exhibits and other segments of the meeting had to be obtained because there was not enough room under one roof. Special arrangements for entertainment and transportation had to be made.

Under the policy thrashed out by Council in the last two years prior to the most recent convention, the annual meetings were to be held at the Greenbrier in even-numbered years and in other state cities in odd-numbered years. Now, Council has designated the Greenbrier as the site for all future annual meetings.

It's not our intent to extol the advantages of the Greenbrier nor to examine Council's motives in directing the change. The significance of this scenario seems to be that our leaders have been responsive to the membership and acted according to their wishes. The Association was willing to experiment. After years of speculation about the possibility of another meeting site by the membership at large, Council directed the change in 1985. Now, after a year to digest the results, Council changed its mind.

No doubt there are members both happy and unhappy with the decision. But if a groundswell to change the meeting site again develops, the leadership has demonstrated that it will respond. As noted, that's the beauty of this experience.—CBH

Our Readers Speak

The Mentally Ill, Substance Abuser

Seasonal Variation In Hospital Admissions?

Paracelsus maintained that some forms of insanity were a permanent state under the influence of the moon and the stars, just as iron is influenced by a magnet or as water is drawn from the earth by the sun.[1] A seasonal analysis of monthly frequencies of admissions to Weston Hospital was done for three groups of patients over fiscal year 1985 — alcoholics, other substance abusers and the mentally ill — to ascertain if a seasonal pattern was present.

The results indicated that there was not a statistically significant variation from month to month for the mentally ill. Both alcoholics and other substance abusers did show peak admissions in June and July, which were statistically significant. Although a records review of one year is not sufficient to draw a general conclusion, this brief evaluation may be of interest. The results of these calculations are listed as follows:[2]

	Alcoholics	*Other substance abusers*	*Mentally ill*
peak/low ratio	1.58	1.94	1.18
month of peak admissions	June	July	July
p-value	0.022	0.025	0.419

1. Ackerknecht EH. Short history of psychiatry. Trans Wolff S. New York: Hafner Pub Co, 1968:24.

2. Rothman KJ, Boice JD, Jr. Seasonal analysis of monthly frequencies. In: Epidemiologic analysis with a programmable calculator. Boston: Epidemiology Resources Inc, 1982:37-38.

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Past Treasurer Comments

At the August meeting of the House of Delegates of the West Virginia State Medical Association I was given recognition and commendation for my years as Treasurer of the Association, an honor which I appreciate and cherish. However, I feel I must comment on this matter publicly.

These have been years of important and far-reaching changes in the office, we have constructed and occupied the Association's headquarters building, there have been two insurance crises, and we have changed insurance carriers (and may have to change again), the Association has become a recognized voice in the State Legislature, and the budget has mushroomed.

During all this the finances of the Association have been carefully garnered and protected, but I would be less than honest if I failed to state that this has been done mostly by the office staff, especially Mrs. Sue Shanklin, ably supervised by our executive secretaries, Charlie Lewis and Mert Scholten, and the Executive Committee. The real recognition should be to them.

G. A. Shawkey, M. D.
3100 MacCorkle Avenue, S.E.
Charleston, WV 25304

Dr. Charles E. Turner Assumes Presidency At Annual Meeting

Dr. Charles E. Turner of Huntington has assumed duties as the new President of the West Virginia State Medical Association.

Doctor Turner was installed as President by Dr. David Z. Morgan of Morgantown, the retiring President, at the concluding session of the House of Delegates Saturday, August 16, during the 119th Annual Meeting of the Association.

The August 12-17 convention returned to the Greenbrier in White Sulphur Springs after being held in Charleston in 1985.

Doctor Turner, an internist-gastroenterologist, is a member of the Huntington Internal Medicine Group, Inc., and is Clinical Professor of Medicine at Marshall University School of Medicine in Huntington.

Convention activities began with a meeting of the WVSMA Council on Wednesday, August 13. One of its actions was to approve the employment of Doctor Morgan as lobbyist for WVSMA during the 1987 state legislative session. (See story on the Council meeting elsewhere in this issue of *The Journal.*)

Other New Officers

Doctor Morgan presided at the Wednesday and Saturday sessions of the House. He automatically became Chairman of the Council for the new Association year, succeeding Dr. Carl J. Roncaglione of South Charleston.

Elevated to President Elect from Vice President was Dr. Cordell A. De La Pena of Clarksburg, who will be installed as President during the 1987 Annual Meeting in White Sulphur Springs at the Greenbrier. He is Chief Pathologist at United Hospital Center, Inc., in Clarksburg.

Dr. Bill M. Atkinson, Parkersburg surgeon, was elected Vice President.

Elected Treasurer was Dr. William C Morgan, Jr., Charleston otolaryngologist, to succeed Dr. G. A. Shawkey, also of Charleston, who resigned.

Dr. Harry S. Weeks, Jr., of Wheeling was re-elected to a two-year term as a Delegate to the American Medical Association, with Dr. Joseph A. Smith of Dunbar re-elected as an Alternate Delegate.

Council Members

Five new Council members were elected — four to two-year terms: Drs. Thomas S. Clark and Michael T. Hogan, both of Morgantown; Warren Point, Charleston, and Herbert D. Stern, Logan. Dr. Michael A. Morehead of Parkersburg was elected to fill the one-year unexpired term of Doctor Atkinson.

Cordell A. De La Pena, M. D.
President Elect

The following have been serving on Council but were considered starting their first term in the first election held since adoption of the Association's new Constitution and Bylaws: Paul E. Frye, Fairmont; Michael J. Lewis, Morgantown; Larry C. Rogers, Petersburg; James L. Bryant, Clarksburg; Thomas La Mar Stahly, Summersville; Constantino Y. Amores, Jean P. Cavender and Echols A. Hansbarger, all of Charleston, and Stephen L. Sebert, Fairlea.

Holdovers Councilors whose terms will expire in 1987 are Drs. Jasbir S. Makar, Weirton; Derrick L. Latos, Wheeling; Francisco D. Sabado, Jr., Martinsburg; Michael M. Stump, Elkins; Mel P. Simon, Pt. Pleasant; Robert W. Lowe, Huntington; Norman W. Taylor and William C. Covey, both of Beckley, and David F. Bell, Jr., Bluefield.

Under the terms of the Constitution, Dr. Carl J. Roncaglione of South Charleston, the Council Chairman last year, becomes Councilor-At-Large for 1986-87; and Dr. John B. Markey of Charleston, the WVSMA President three years removed, will serve as Junior Councilor during the period.

The Executive Committee, Council and House approved an amendment to the Bylaws to eliminate the honorary membership category. Since proposed constitutional amendments must lie over for a year, actual removal of the membership category cannot take place until the same amendment to the Constitution is approved by the House in 1987.

Resolutions

The 19 resolutions adopted by the House were more than usually ap-

proved in recent years. Some of the resolutions deal with such matters as:

- resubmission of a tort reform bill in the state Legislature;
- abolishing punitive damages in medical liability cases;
- prohibiting the sale of smokeless tobacco products to minors;
- mandatory use of seat belts
- adequate funding for the West Virginia Board of Medicine;
- prompt payment by third-party carriers;
- commendation of Drs. David Z. Morgan, Morgantown, 1985-86 President, and G. A. Shawkey, Charleston, former Treasurer who resigned effective at the time of the convention, for their service and contributions to WVSMA;
- adequate state reimbursement levels for obstetrical services to the indigent;
- evaluation of effects of cost containment and regulatory efforts by prepaid plans and other carriers on the quality of health care.

The full texts of the resolutions appear elsewhere in this issue of *The Journal.*

Doctor Fix Honored

Dr. L. Walter Fix of Martinsburg, 1980-81 WVSMA President, was presented an award, in the form of a resolution of appreciation, from the Executive Committee during the first House session August 12.

The award recognized Doctor Fix for coming out of "retirement" to serve an additional year as Council Chairman for 1984-85 upon the departure from West Virginia of former President Carl Adkins, M. D., and for serving as the first President of the West Virginia State Medical Association Properties, Inc., and continuing to serve as Treasurer of this WVSMA subsidiary which owns the headquarters building in Charleston.

A plaque containing the resolution was presented to Doctor Fix by Doctor Morgan.

Huntington Native

Doctor Turner was elected Vice President in 1984, and became President Elect in August, 1985.

A native of Huntington, President Turner is a member of the active staff of Cabell Huntington and St. Mary's hospitals there, and is consultant in gastroenterology at the Huntington Veterans Administration Medical Center.

He was Chief of Medicine at St. Mary's from 1973 to 1982, and was President of the Cabell County Medical Society in 1983.

Certified by the American Boards of Internal Medicine and Gastroenterology, Doctor Turner is a graduate of Marshall University, and received his M. D. degree in 1963 from West Virginia University School of Medicine where he became a member of Alpha Omega Alpha, the honor medical society.

He completed his postgraduate work, including a fellowship in gastroenterology, at Strong Memorial Hospital, University of Rochester, Rochester, New York, and served as a medical officer with the U. S. Navy from 1965 to 1967.

The new President is a member of a number of professional organizations, and is a Fellow of the American College of Physicians and the American College of Gastroenterology.

President Elect

Doctor De La Pena, the President Elect, served two terms on the WVSMA Council, and is a member (1986 Chairman) of the Resolutions Committee. He also has served as a member of the Program, Cancer, Budget and Audit, and Nominating committees.

He is a member of the Board of Directors of United Hospital Center, Inc., and will serve as President of the medical staff for a second time beginning in November.

Doctor De La Pena also is Chief of Staff and Chief of Laboratory Services at Clarksburg Veterans Administration Medical Center.

Born in Honolulu, he received his M. D. degree from the University of Santo Thomas in Manila, Philippines, and completed postgraduate work in this country in Massachusetts, Connecticut and Pennsylvania.

The President Elect is Clinical Assistant Professor of Pathology at WVU School of Medicine, and is a Past President of the West Virginia Association of Pathologists, Inc., West Virginia Association of Blood Banks, Harrison County Medical Society, Harrison County Cancer Society, and Association of Philippine American Pathologists.

He is certified by the American Board of Anatomic Pathology, American Board of Clinical Pathology, American Board of Pathology — Hematology, and also is certified in infection control.

Greenbrier Site Chosen For Annual Meeting

It's back to the Greenbrier in 1987.

In a policy reversal during its pre-convention meeting in August at the Greenbrier, WVSMA Council cancelled the previously announced site of Charleston for the 1987 Annual Meeting, and directed that all future annual meetings be held at the Greenbrier.

The 1987 convention dates will be from Saturday, August 8, through Wednesday, August 12, the Executive Committee announced in late August following the 1986 August 12-17 Annual Meeting. The 1987 time slot is the only feasible one available at the Greenbrier next August. WVSMA annual meetings historically have been held Tuesday through Saturday.

Under the previous plan, annual meetings were to be held at the Greenbrier in even-numbered years and in other state cities in odd-numbered years. (See editorial on Page 384.)

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

Oct. 1, Charleston, Faculty Research Day

*Oct. 10-11, Morgantown, Internal Medicine Update '86

Oct. 14, Charleston, The Role of Autologous Bone Marrow Transplantation for Solid Tumors

Oct. 18, Morgantown, 7th Annual Ophthalmology Conference

Oct. 18, Charleston, WV Thoracic Society

*Oct. 23-24, Morgantown, 12th Hal Wanger Family Practice Conference

Oct. 24, Charleston, Emergency Care Seminar

*Oct. 25, Morgantown, Pediatric Octoberfest

*Nov. 1, Morgantown, Cardiology Update

Nov. 5, Charleston, Adolescent Obesity

*Nov. 22, Morgantown, Magnetic Resonance Imaging

Dec. 11, Charleston, Newer Treatments for Lung Cancer

* in conjunction with WVU football games

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center-Charleston Division/CAMC

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — Oct. 16 (program to be announced)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Thursday, 8-10 A.M. — Oct. 9, "Update on Guidelines for Disability Determination," WV Workers' Compensation Fund

Nov. 13, "Office Evaluation & Management of Urinary Incontinence," James Lane, M. D.

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. —Oct. 1, "Lithotripsy: ESWL," Thomas McCoy, M. D.

Nov. 5, "Seizure Disorders," A. L. Poffenbarger, M. D.

Dec. 3, "Allergy & Immunology," L. Blair Thrush, M. D.

Greenbrier, Library, Greenbrier Clinic, 3rd Tuesday, 4-5 P. M. — Oct. 21, "Early Diagnosis of Breast Cancer," James Boland, M. D.

Nov. 18, "Ruptured Lumbar & Cervical Disc: A 30-Year View," Robert Nugent, M. D.

Dec. 16, "Noninvasive Cardiac Imaging," William Carter, M. D., & Donald Lilly, M. D.

Madison, Boone Memorial Hospital, 2nd Tuesday, 7-9 P. M. — Oct. 14, "Update Respiratory Therapy," Mahendra Patel, M. D.

Nov. 11, "Acute Medical Emergencies & Transport," John Walker, R.N., & Nancy Crittenden, R.N.

Dec. 9, "Early Warning in the Diagnosis of AIDS," Patrick Robinson, M. D.

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — Oct. 28, "Update Cardiovascular Surgery," Daniel Foster, M. D.

Summersville, Summersville Memorial Hospital, 1st Tuesday, 6:30-8:30 P. M. — Oct. 7 (vacation)

Nov. 4, "Pulmonary Function Testing," Bippin Avashia, M. D.

Dec. 2, "Update on Treatment of Common Cancers," Daniel Lee, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — Oct. 15, "ENT," Nabil A. Ragheb, M. D.

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — Oct. 22, "Update Emergency Medicine," Edward Wright, M. D.

Nov. 26 (vacation)

Dec. 24 (vacation)

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — Oct 2, "Anesthesia for the Non-Anesthetist," J. K. Lilly, M. D.

Nov. 6, "The Primary Care Provider & the Diagnosis of AIDS," Patrick Robinson, M. D.

Dec. 4 (vacation)

Florida Doctor To Speak To Ophthalmologists

Melvin L. Rubin, M. D., Chairman of Ophthalmology at the University of Florida at Gainesville, will be the featured speaker for the Seventh Annual Ophthalmology Conference October 18 at West Virginia University Medical Center.

Doctor Rubin is this year's nominee for President Elect of the American Academy of Ophthalmology.

The program also will feature the dedication of the Hutchinson Lectureship in Ophthalmology. Dr. B. Thomas Hutchinson, donor of the lectureship, will be present.

Sponsors are the WVU Department of Ophthalmology and the West Virginia Academy of Ophthalmology.

Turner
&
Turner

◀ Facing Page: Dr. Charles E. Turner and his wife, Linda, Huntington, were installed as Presidents of the WVSMA and its Auxiliary, respectively, as the two groups held their annual meetings in August at the Greenbrier in White Sulphur Springs.

▲ Dr. Charles R. Arnett, Philippi, right, receives the WVSMA's A. H. Robins Company Physician Award for Community Service from Dr. David Z. Morgan, M. D., 1985-86 President, during the first House session at the Association's convention.

▲ Dr. G. A. Shawkey, Charleston, was recognized for many years of service as WVSMA Treasurer prior to his resignation effective at the time of the Association's Annual Meeting.

▼ Some of the new or re-elected Association officers are, from left (seated), Drs. Bill M. Atkinson, Parkersburg, Vice President; Doctor Turner, President, and Cordell A. De La Pena, Clarksburg, President Elect; standing from left, Drs. Joseph A. Smith, Dunbar, re-elected AMA Alternate Delegate, and Harry S. Weeks, Jr., Wheeling, re-elected AMA Delegate.

▲ Some of the WVSMA Councilors are shown immediately following the Annual Meeting in August. From left, are Drs. Stephen L. Sebert*, Fairlea; Michael A. Morehead, Parkersburg, new Councilor; Herbert D. Stern, Logan, new Councilor; James L. Bryant*, Clarksburg; William C. Covey, Jr., Beckley, holdover Councilor; Jean P. Cavender*, Charleston, and Constantino Y. Amores*, Charleston.

*Served previously on Council but considered starting first term in first election held since adoption of new constitution and bylaws.

◀ The WVSMA Publication Committee met during the Annual Meeting. Seated are Doctors Stephen D. Ward (left), Wheeling, Editor of the Journal, and Joe N. Jarrett, Oak Hill, Associate Editor; standing, from left, Drs. John M. Hartman, Charleston; Thomas J. Holbrook, Huntington, and L. Walter Fix, Martinsburg, Associate Editors. Not shown are Drs. Vernon E. Duckwall, Elkins, and David Z. Morgan, Morgantown, Associate Editors.

▲ Checks were given to Drs. Richard A. DeVaul, left, Dean, WVU School of Medicine, and Jack H. Baur, Assistant Dean for Clinical Affairs, MU School of Medicine, during the first House session at the WVSMA convention. Jeanny Kalaycioglu (Mrs. M. V.) of Shinnston, 1985-86 WVSMA Auxiliary President, presented the checks ($19,352 for WVU and $11,596 for MU), representing the annual contribution by state doctors and the Auxiliary to the medical schools through the Education and Research Foundation of the AMA (AMA-ERF).

▲ Following his address to the first session of the House of Delegates, Dr. John J. Coury, Jr. (left), Port Huron, Michigan, AMA President, watches other House proceedings. Next to him is Dr. Joseph T. Skaggs of Charleston.

▼ Convention scene shows registration table and doctors leaving just-concluded scientific session.

Maurice A. Mufson, M. D.

Joye A. Martin, M. D.

Geriatrics, Ethics

'87 'Mid-Winter' Speakers Named

Speakers on geriatrics and ethics for the 20th Mid-Winter Clinical Conference next January 23-25 have been announced by the Program Committee.

The Saturday afternoon, January 24, session on "Concerns in Geriatrics" will include talks by Dr. Maurice A. Mufson of Huntington, who also will serve as moderator, and Dr. Joye A. Martin, also of Huntington. Doctor Mufson will discuss "Update on Immunization of the Elderly," and Doctor Martin will speak on "Exercise, Nutrition and Immobility."

"Ethical Dilemmas for the 1980s and Beyond" will be the title of the Sunday morning session, for which Dr. Warren Point of Charleston will be one of two speakers.

The annual CME event will open Friday, January 23, at the Charleston Marriott and end at noon on Sunday, January 25, with scientific sessions scheduled Friday afternoon, Saturday morning and afternoon, and Sunday morning.

The conference is being sponsored by WVSMA, Marshall University and West Virginia University schools of medicine, and Charleston Area Medical Center.

Impaired Physician

The Friday evening physicians' session will focus on the impaired physician and the WVSMA's Judicial Commission which, under the provisions of the Association's new constitution and bylaws approved in 1985, has final authority in matters pertaining to ethics, grievances and physician discipline. Rules and regulations of the Judicial Commission were approved during the pre-convention meeting of Council this past August.

"Foods for Healthy Living" will be the subject of the concurrent Friday evening public session, with plans for a special two-hour "healthful" cooking demonstration and luncheon co-sponsored by the WVSMA's Auxiliary, beginning at noon that same day.

"Problems of Adolescence" will be the Saturday morning topic.

Doctor Mufson is Professor and Chairman, Department of Medicine, and Professor of Microbiology at MU School of Medicine. A member of the Mid-Winter Clinical Conference Program Committee since 1978, he came to the MU Chairman of Medicine post in 1976 from the University of Illinois College of Medicine in Chicago where he was Professor of Epidemiology.

County Society President

Doctor Mufson is President of the Cabell County Medical Society, on the Editorial Board of the *Journal of Clinical Microbiology*, and is a Fellow of the Infectious Diseases Society of America.

From July, 1984, to April, 1985, he was on sabbatical leave as Visiting Scientist in the Department of Virology, Karolinska Institute, Stockholm, Sweden, with Dr. Erling Norrby.

Born in New York City, Doctor Mufson was graduated from Bucknell University, and received his M. D. degree in 1957 from New York University College of Medicine. He completed postgraduate work at Bellevue Hospital in New York City and the University of Illinois, and was a NIH fellow in infectious diseases.

He is the author or co-author of 124 articles and 36 abstracts.

Geriatrics Chief

Doctor Martin is Associate Professor and Chief, Section of Geriatric Medicine, Department of Family and Community Health at MU School of Medicine. She joined the MU faculty in 1982 after two years of private practice in Barboursville, and continues to see patients on a part-time basis at MU's satellite clinic there.

She was graduated from Wilkes College in Wilkes-Barre, Pennsylvania,

Warren Point, M. D.

and received her M. D. degree in 1977 from the Medical College of Pennsylvania in Philadelphia. She completed her residency at Temple University in Philadelphia, and is certified in internal medicine.

Doctor Martin is Medical Director of the Red Cross Senior Citizen Health Fair, member of the Discharge Planning Task Force and the Tissue Committee at Cabell Huntington Hospital, and the Utilization Review Committee at Saint Mary's Hospital in Huntington.

She received the Outstanding Professor Award at MU School of Medicine in 1984.

Doctor Point

Doctor Point, a native of Charleston, returned to that city in 1977 from Massachusetts to join the faculty of WVU Medical Center. His current appointments are: Assistant Chairman, Department of Medicine, WVU Medical School; Chairman, Department of Medicine, Charleston Area Medical Center, and Professor and Director, Department of Medicine, WVU Medical Center, Charleston Division. He is a member of WVSMA's Council.

He is a board member of the CAMC Foundation and the CAMC Housing Corporation, and is active in the American College of Physicians, of which he is a Fellow. He was ACP Governor for West Virginia in 1983, and served on the Executive Council of the Association of Program Directors in Internal Medicine in 1985.

Doctor Point was graduated from WVU, and received his M. D. degree in 1945 from Harvard. He did postgraduate work at Boston City Hospital, and was a clinical and research fellow in gastroenterology at Massachusetts General Hospital in Boston. He was in private practice in Boston from 1951-77, and in group practice at Massachusetts Institute of Technology in Cambridge from 1967-77.

Doctor Point also serves on the boards of the University of Charleston, United Way of Charleston, and Charleston National Bank.

As announced previously, Dr. Albert F. Heck of Charleston will speak on Alzheimer's disease during the Saturday afternoon geriatrics session, and Dr. Eugene A. Stead, Jr., from Duke University will be the other speaker for the Sunday ethics session.

Doctor Heck is Professor of Neurology at WVU Charleston Division, staff neurologist at CAMC, and Director, Neurological Training, WVU Charleston Division.

Doctor Stead was Florence McAlister Professor of Medicine and Chairman, Department of Medicine at Duke from 1947-67, and now is professor emeritus in that appointment. He also was physician-in-chief at Duke Hospital during those years.

The Saturday morning adolescence session will explore such problems as substance abuse, depression and suicide, and pregnancy. The Saturday afternoon geriatrics session, in addition to the subjects mentioned above, will include discussion of polypharmacy and depression.

The Sunday morning ethics speakers will cover code issues, organ donations and the comatose patient.

Members of the Program Committee are Drs. William O. McMillan, Jr., Charleston, Chairman; Doctor Mufson; Joseph T. Skaggs, Charleston; Richard G. Starr, Beckley; John W. Traubert, Morgantown, and C. Carl Tully, South Charleston.

Sports Winners Crowned At Annual Meeting

Dr. Andrew Summers of Morgantown won the WVSMA Golf Tournament trophy with the low gross score of 72 in competition held in conjunction with the Association's 119th Annual Meeting in White Sulphur Springs.

Dr. David B. Gray of Charleston was the winner in tennis competition, in round-robin type of play.

Winners in the women's tennis doubles competition were Maria Capinpin (Mrs. Alberto G.) and Tommie Roncaglione (Mrs. Carl J.), both of Charleston.

Maxine Gilmore (Mrs. William E.) of Vienna was the low gross winner in the women's golf competition.

FAMILY PORTRAIT. Dr. Charles E. Turner (center, rear) of Huntington, the new WVSMA President, is shown with his family. In the front, wife Linda (center), 1986-87 WVSMA Auxiliary President, sits with daughters Holly, left, and Julie. With Doctor Turner are sons Jim, left, and Mark.

Poetry Corner

OCTOBER

October, you have done it again!
Just when I get mired
In the quagmire
Of a sodden
September,
You pull me out
And fling me to the bright blue skies;
Where I watch the autumn colors,
Treading on the heels
Of a fading summer,
March across the hills
To the time of winter's drummer.

I am surrounded by warmth
Encased in a shell of coolness,
Which one morning will crack
And let the warmth escape.

But for now
I bask
In your beauty.

--Robert L. Smith, M.D., Morgantown

———

RELUCTANT OAK LEAVES

There seems no valid reason at all
For brown oak leaves not to fall
In autumn
With the others,
Except their "druthers"
Are to hang on a little longer.

I watched an old oak by my door
For several weeks, and several more,
As winter
Worked her silent spell,
Yet not one little oak leaf fell
Until the March winds came.

Then what a lovely time they had,
They seemed to be so dizzily glad
That the wind
Was finally there,
With no other leaves to share
Their madcap swirling 'cross the snow.

I think this is the reason
Oak leaves never fall in season —
They'd rather not,
I do believe,
Be seen with all those brighter leaves
We so admire in autumn.

—Robert L. Smith, M.D., Morgantown

The Journal Invites Readers' Poetry

Do you have the creative urge? Do you feel like waxing poetic? Are you a "closet" poet?

If your answer to any of these questions is "yes," *The Journal* invites you to submit your poetry to the "Poetry Corner" which, hopefully, will appear in each issue (depending on your response!).

The Publication Committee is starting "Poetry Corner" in its continuing attempt to add new dimensions, and interest, for *Journal* readers.

The new feature is inaugurated in the accompanying "Poetry Corner" with two poems submitted by Dr. Robert L. Smith of Morgantown.

Writers submitting poetry which is accepted for publication will be so notified, and will be given credit at the time of printing.

Doctors, release your tensions and let your creative juices flow. It'll be good for you! Submit your poems to "Poetry Corner."

Annual Elections Held By Sections, Societies

Following are officers (as reported to *The Journal*) elected or re-elected by specialty societies or sections during meetings in conjunction with the WVSMA's Annual Meeting in August in White Sulphur Springs at the Greenbrier:

West Virginia Gastrointestinal Society: Drs. Thomas W. Kiernan, Huntington, President; Firas Al-Kawas, Morgantown, President Elect, and Marc Subik, Huntington, Secretary-Treasurer.

West Virginia Chapter, American College of Emergency Physicians: Drs. R. Bruce Henthorn, Parkersburg, President; Rex Lasure, Wheeling, President Elect; Debra Slapper, Princeton, Vice President, and C. David Burkland, Wheeling, Secretary-Treasurer.

Section on Surgery: Dr. Bill M. Atkinson, M. D., Chairman.

Council Acts Cover Wide Range At August Meeting

The WVSMA Council, in its pre-convention meeting August 13 at the Greenbrier, approved honorary and retired members and heard reports by the Impaired Physician Committee and the Judicial Commission.

As reported in the August 25 issue of WESGRAM, Council: heard the Insurance Committee report that CNA Insurance, the WVSMA-endorsed liability insurance carrier, will request an overall premium increase of 23 per cent in 1987: heard the Committee report further that occurrence type of coverage would be offered one more year, after which CNA coverage would be on a claims-made basis only; approved the formation of a captive insurance company by WVSMA, to be "put on the shelf" and designed to be activated, if necessary, in 30 to 40 days; and approved the employment of Dr. David Z. Morgan, 1985-86 WVSMA President, as WVSMA lobbyist during the 1987 state legislative session.

The Executive Committee is continuing negotiations with CNA on 1987 insurance coverage.

Council approved honorary membership for Dr. Charles F. Whitaker,

NATIONAL RECOGNITION. Dr. John M. Grubb, Point Pleasant obstetrician-gynecologist, is the 1986 American Cancer Society's Medical Volunteer of the Year. Doctor Grubb was the one person in the nation selected from four finalists, with entries submitted by state chapters.

Jr., of Parkersburg (Parkersburg Academy), and retired membership for Drs. Frederick C. Goodall of Princeton (Mercer County Medical Society) and Richard W. Brown of Spencer (Western West Virginia).

Procedures for use by the Committee on the Impaired Physician, as prepared by the law firm of Kay, Casto & Chaney of Charleston, were approved by Council. The Committee update was presented to Council by the Chairman, Dr. Kenneth M. Fink of Huntington.

Rules and regulations of WVSMA's Judicial Commission, also prepared by Kay, Casto and Chaney, were approved by Council.

In other actions, Council:

- Heard an update by Woodford Burnett, President of Interactive Medical Systems, Raleigh, North Carolina, on Preferred Medical Care Network Inc. (PMCN), WVSMA's preferred provider organization (PPO), with a directory of members expected to be ready for distribution about September 1;
- Approved a plan to enlist student and resident members into WVSMA membership, with WVSMA subsidizing a part of the dues;
- Approved the transfer of $10,000 to West Virginia University School of Medicine and $10,000 to Marshall University School of Medicine from the scholarship fund to establish the Charlie Lewis Student Loan Fund to finance three scholarship loans each year at each of the schools. (Changing the former scholarship awards program to a loan program was approved several years ago, with the new loan program named in honor of the late Charles R. Lewis, WVSMA Executive Secretary in 1975-84.)
- Reiterated that visitations to component societies would be made by the Association President at least every second year and, in the interim, an officer or staff person would make the official visit.

Special Thanks

The following firms contributed door prizes for distribution during the 119th Annual Meeting held at the Greenbrier in August but were received too late for inclusion in the official program:

BROYLES JEWELERS
Spring Hill, WV

ROERIG PHARMACEUTICALS
New York, NY

WVSMA Honors Doctor, Lay Person

A Philippi physician who has given years of volunteer service to his profession and community, and a Huntington supermarket owner who originated Grocers-Merchant Day for the American Cancer Society received special awards from WVSMA during its Annual Meeting in August at the Greenbrier.

Dr. Charles R. Arnett, a busy general practitioner who has managed to serve many causes both through his church and on his own, was presented the A. H. Robins Company Physician Award for Community Services (See photo on Page 389).

John C. Beckwith, owner of the B & B Produce Market in Huntington, was given the WVSMA Presidential Citation, an award recognizing contributions to health care by West Virginia lay citizens.

At different times between 1967 and 1980, Doctor Arnett spent a total of nine years donating medical services in Africa through the United Methodist Church, and three weeks in Honduras (1975) where relief work was needed.

He has been instrumental in implementing an obstetrical clinic for the care of the indigent in cooperation with the State Health Department, and volunteered to serve as Medical Director of the Physician Assistant training program at Alderson-Broaddus College in Philippi.

Doctor Arnett, who coordinated local relief volunteers after the

John C. Beckwith of Huntington was presented the WVSMA Presidential Citation, an award recognizing contributions to health care by West Virginia lay citizens, during the August Annual Meeting at the Greenbrier. Mr. and Mrs. Beckwith (above) proudly display the award following the presentation.

November, 1985, flood, also has worked with the Boy Scouts, was a coordinator for the annual CROP Walk for World Hunger, and is a pharmacology and obstetrics teacher at Alderson-Broaddus.

In 1961, after the death of one of his daughters from cancer, Beckwith was asked by the local chapter of the cancer society to develop a way of raising money for the chapter. He came up with the idea of donating money through his store by contributing five per cent of all sales for one day. The idea has grown annually to include virtually all aspects of the business community in the Huntington tri-state area, and has spread into several other states.

Beckwith, who celebrated his 25th anniversary for Grocers-Merchants Day this year, has been responsible for raising more than $1 million for the West Virginia Division of the American Cancer Society.

He received the National Grocer of the Year Award in 1979 from the Grocers' Spotlight at the National Association of Retail Grocers Convention.

Linda Turner Auxiliary President

Linda Turner (Mrs. Charles E.) of Huntington assumed the presidency of the Auxiliary to the State Medical Association at the group's 62nd Annual Meeting in White Sulphur Springs at the Greenbrier, August 13-16.

Mrs. Turner was installed by Pat Durham (Mrs. Mylie E., Jr.) of Houston, Texas, President of the AMA Auxiliary, who was an honor guest.

It will be a busy and challenging year for the Turners since Doctor Turner (Skip) was installed as President of the State Medical Association during its Annual Meeting held concurrently with the Auxiliary's meeting at the Greenbrier (see photo on page 388).

The Auxiliary elected Denny Fischer (Mrs. Herman) of Bridgeport as President Elect and the following additional officers:

Mrs. Harvey Reisenweber, Martinsburg, Vice President; Mrs. Edward Spencer, Bluefield, Recording Secretary; Mrs. Jack H. Baur, Huntington, Corresponding Secretary; Mrs. Logan Hovis, Vienna, Treasurer;

Mrs. George Naymick, Newell, Northern Regional Director; Mrs. C. Vincent Townsend, Martinsburg, Eastern Regional Director; Mrs. E. L. Gage, Bluefield, Southern Regional Director; Mrs. W. F. Daniels, Jr., Huntington, Western Regional Director, and Mrs. Douglas Curnutte, Charleston, Central Regional Director;

and Mrs. Gary Gilbert, Huntington, Parliamentarian.

AUXILIARY OFFICERS. Some of the 1986-87 officers of the Auxiliary to the West Virginia State Medical Association are shown above. They are (front, from left) Ginny Reisenweber (Mrs. Harvey), Martinsburg, Vice President; Linda Turner (Mrs. Charles E.), Huntington, President; Denny Fischer (Mrs. Herman), Bridgeport, President Elect; rear, from left, Sara Townsend (Mrs. C. Vincent), Martinsburg, Eastern Regional Director; Marjorie Naymick (Mrs. George), Newell, Northern Regional Director; Alice Hovis (Mrs. Logan), Vienna, Treasurer, and Lois Spencer (Mrs. Edward) Bluefield, Recording Secretary.

Committee Chairmen

Mrs. Turner also announced these appointments of committee chairmen or co-chairmen:

Mrs. Grady McRae and Mrs. David Bell, both of Bluefield, AMA-ERF; Mrs. C. Vincent Townsend, Martinsburg, Bylaws; Mrs. Gary Gilbert and Mrs. D. Sheffer Clark, both of Huntington, Convention; Mrs. Charles Harrison, Clarksburg, Circulation; Mrs. D. Sheffer Clark, Huntington, Finance; Mrs. Herbert Stern, Logan, Health Projects; Mrs. Joseph D. Wright, Bridgeport; Mrs. Jose Serrato, South Charleston, and Mrs. Tony Majestro, Charleston, Health Careers Loan Fund;

Mrs. James Kessel, Charleston, Legislation; Mrs. George Naymick, Newell; Mrs. Joe Jarrett, Oak Hill, and Mrs. Charles Harrison, Clarksburg, Long-Range Planning; Mrs. Paul E. Gordon, Clarksburg, Med-Link Editor; Mrs. Herman Fischer, Bridgeport, Membership; Mrs. Harvey Reisenweber, Martinsburg, Members-At-Large;

Mrs. Robert Hess, Bridgeport, Historian; Mrs. Wilson P. Smith, Huntington, Necrology; Mrs. M. V. Kalaycioglu, Shinnston, Past President on Board; Mrs. M. Bruce Martin, Huntington, Policies and Procedures; Mrs. Jack H. Baur, Huntington, Press and Publicity Scrapbook; Mrs. Richard DeVaul, Morgantown, RPMS Spouse Liaison; Mrs. M. V. Kalaycioglu, Shinnston, Southern Medical Councilor, and Mrs. Harry S. Weeks, Jr., Wheeling, WESPAC.

President Turner

Linda Turner, who holds an A.B. degree in English and speech from Marshall University, has taught part-

time at MU's Community College for the past two years.

She likes to paint, and is a member of the Tri-State Arts Association and a Docent at Huntington Galleries.

Linda and Doctor Turner are the parents of four children: Jim, a student at West Virginia University Law School; Holly, a junior at MU in Early Childhood Education; Mark, a freshman at MU in business and a member of the soccer team, and Julie, in the ninth grade at Cammack Junior High School.

She was born in Webster Springs and grew up in St. Albans.

Linda taught school in Monongalia County while Doctor Turner was in WVU Medical School, and was a substitute teacher in Rochester, New York, while he was an intern and resident.

12 MU Faculty Members Receive Awards

Five teaching physicians inducted into a new Outstanding Teacher Honorary Society were among 12 Marshall University School of Medicine faculty members and six students receiving awards in opening exercises September 9.

Physicians chosen for the newly formed society were Dr. Stephen Wolf of the Departments of Surgery and Pediatrics and Drs. Nancy Munn, Sam Bebawy, Prathap Chandran and James Kemp of the Department of Medicine.

The Society was created by the school's third-year class to honor faculty physicians for special efforts in teaching and working with third-year students. "Our class wants to recognize and promote teaching excellence in the clinical years of medical education and to thank the professors for their efforts in academic medicine," said class member Robert Mehl, Ph.D.

Faculty members honored by the second-year class were Dr. William Kopp of Microbiology, Professor of the Year; Drs. Gary Rankin of Pharmacology and Danny Wedding of Psychiatry, Outstanding Teachers, and Dr. Charles Yarbrough, Clinical Instructor of the Year.

First-year students chose Drs. Ruu Tong Wang and David L. Dawson of Anatomy as professors of the year and Dr. Robert Touchon of Medicine as Clinical Instructor of the Year.

Student Academic Achievement Awards for performance in the last academic year went to David Hubbard of Huntington, year one; Cheryl Pippin and James Mears, both of Huntington, year two; and Mark Coggins of Shadyside, Ohio, year three. The Pathology Book Award went to Michael Hurst of Princeton, year two. As part of the Year One award, McGraw-Hill Book Company provided Hubbard with a set of medical reference and study books and a plaque. In addition, it presented a special academic citation and a set of medical books to William White of Montgomery for his work as a first-year student.

WVSMA conventioneers and guests at the Greenbrier enjoyed the August 15 dance sponsored by the Association and the Auxiliary. The music, for the second year, was provided by Bo Thorpe and His Orchestra of Rocky Mount, North Carolina.

Medical Meetings

Oct. 5-8—Am. Neurological Assoc., Boston.

Oct. 8-10—Traumatic Head Injury Conference, Braintree, Mass.

Oct. 14-18—Medical Group Management Association, Los Angeles.

Oct. 15-17—Am. College of Gastroenterology, Atlanta.

Oct. 18—WVSMA Loss Control Seminar, Beckley.

Oct. 19-24—Am. College of Surgeons, New Orleans.

Oct. 19-24—Am. Academy of Physical Medicine & Rehabilitation, Baltimore.

Nov. 2-7—Am. Assoc. of Blood Banks, San Francisco.

Nov. 2-7—Am. Society of Therapeutic Radiology & Oncology, Los Angeles.

Nov. 5-7—Am. Cancer Society, New York City.

Nov. 8—WVSMA Loss Control Seminar, Huntington.

Nov. 8-11—Southern Medical Assoc., Atlanta.

Nov. 9-13—Am. Academy of Ophthalmology, New Orleans.

Nov. 12-16—Am. Medical Women's Assoc., St. Louis.

Nov. 15-18—Am. Assoc. for Clinical Immunology & Allergy, Ft. Lauderdale, Fla.

Nov. 16-19—Am. Geriatrics Society, Chicago.

Dec. 6-7—Am. Society of Hematology, San Francisco.

Dec. 6-7—National Kidney Foundation, Washington, DC.

1987

Jan. 15-17—Neurosurgical Society of the Virginias, Hot Springs, Va.

Jan. 22-27—Am. Academy of Orthopaedic Surgeons, San Francisco.
Association, Los Angeles.

Jan. 23-25—20th Mid-Winter Clinical Conference, Charleston.

WVU Medical Center News

West Virginia University

From material furnished by the Medical Center News Service, Morgantown, W. Va.

CME Office Awarded Six-Year Accreditation

The School of Medicine's Office of Continuing Medical Education has been awarded accreditation for six years, based on a resurvey in June by the Accreditation Council for Continuing Medical Education (ACCME).

The endorsement, the longest the group gives, assures that CME activities the School of Medicine sponsors meet the high standards specified by the ACCME.

WVU Dean Richard A. DeVaul, M. D., said that "the outstanding ratings achieved by our continuing medical education program demonstrate the strong commitment of our faculty to excellence in teaching and service to the physicians of West Virginia."

David Z. Morgan, M. D., Associate Dean for Medical Affairs, and Robert E. Kristofco, Assistant to the Dean for Continuing Medical Education, prepared a comprehensive report and met in Chicago in June with representatives of the ACCME review committee.

Doctor Morgan said, "The reviewers were impressed with our over-all program and were especially complimentary about our efforts to work with other CME providers in West Virginia to identify physician needs for continuing education programming on a statewide basis."

The medical school's CME office annually offers 15 to 20 conferences and symposia, and physician faculty members from Morgantown and the Charleston Division travel regularly to 20 communities in the state to make continuing education presentations to health professionals.

The CME office also arranges mini-residency experiences that allow practicing physicians to return to the Medical Center for individual updates, and the School of Medicine cooperates with voluntary health organizations in the development of annual conferences, workshops and self-instruction programs.

In its evaluations, the ACCME uses standards adopted by these organizations: American Board of Medical Specialties, American Hospital Association, American Medical Association, Association of American Medical Colleges, Association for Hospital Medical Education, Council of Medical Specialty Societies, and the Federation of State Medical Boards.

Two New Physicians Join Ophthalmology

Two new physicians have been appointed as assistant professors of ophthalmology.

Irene Tsironis, a specialist in pediatric ophthalmology, is a graduate of the Ohio State University College of Medicine where she received honors in medicine, cardiology and pathology. She completed a residency at The Medical College of Ohio at Toledo and a fellowship at the Illinois Eye and Ear Infirmary in Chicago. Doctor Tsironis has done research on strabismus in children with myelomeningocele, a spinal cord defect.

Joe G. Feghali received his medical degree from the American University of Beirut, Lebanon, where he also completed a residency in ophthalmology. He served a fellowship at the University of Wisconsin Clinical Science Center and, in 1984, received a Fogarty International Award from the National Institutes of Health. His primary research interest is glaucoma, including various methods of treating intraocular pressure.

Doctor Feghali's position was created as a result of the endowment of the Jane McDermott Shott Chair of Ophthalmology at WVU in 1985.

Pharmacology Head Gets Award For Achievements

William W. Fleming, Ph.D., Professor and Chairman of the Department of Pharmacology and Toxicology, has received the second annual Otto Krayer Award in Pharmacology for his lifetime achievements in pharmacological studies on the mechanisms of drug and chemical action.

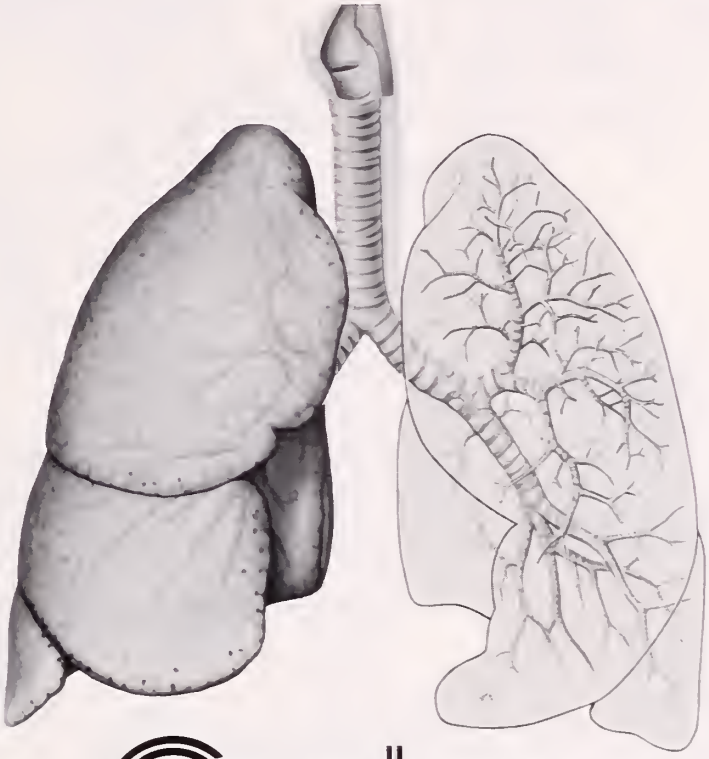
The award is presented annually by the American Society for Pharmacology and Experimental Therapeutics (ASPET) and is supported by Stuart Pharmaceuticals.

Dr. Otto Krayer, Chairman of the Department of Pharmacology at Harvard Medical School from 1939 until 1966, was a world-known pharmacologist who died in 1982. Doctor Fleming served a postdoctoral fellowship in pharmacology at Harvard under Doctor Krayer's leadership during 1957-60.

Doctor Fleming, who grew up in the Washington, D. C. area and the state of Montana, did his undergraduate work in biology at Harvard as a scholarship recipient, and received a doctorate from Princeton in 1957 before returning to Harvard for his postdoctoral fellowship. He came to WVU in 1960, and became Chairman of the Department of Pharmacology in 1966.

He is one of the Medical Center's leading scientists and has authored or co-authored more than 170 publications.

Consider the causative organisms...



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cefaclor

250-mg Pulvules® t.i.d. offers effectiveness against the major causes of bacterial bronchitis

Haemophilus influenzae, H influenzae, Streptococcus pneumoniae, Streptococcus pyogenes
(ampicillin-susceptible) (ampicillin-resistant)

Note: Ceclor® is contraindicated in patients with known allergy to the cephalosporins and should be given cautiously to penicillin-allergic patients.

Penicillin is the usual drug of choice in the treatment and prevention of streptococcal infections, including the prophylaxis of rheumatic fever. See prescribing information.

Ceclor® (cefaclor)

Summary. Consult the package literature for prescribing information.

Indications: Lower respiratory infections, including pneumonia, caused by susceptible strains of *Streptococcus pneumoniae, Haemophilus influenzae,* and *S. pyogenes* (group A beta-hemolytic streptococci).

Contraindications: Known allergy to cephalosporins.

Warnings: CECLOR SHOULD BE ADMINISTERED CAUTIOUSLY TO PENICILLIN-SENSITIVE PATIENTS. PENICILLINS AND CEPHALOSPORINS SHOW PARTIAL CROSS-ALLERGENICITY. POSSIBLE REACTIONS INCLUDE ANAPHYLAXIS.

Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:
- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- In renal impairment, safe dosage of Ceclor may be lower than that usually recommended. Ceclor should be administered with caution in such patients.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
- Gastrointestinal (mostly diarrhea): 2.5%.
- Symptoms of pseudomembranous colitis may appear either during or after antibiotic treatment.
- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, erythema multiforme, serum-sickness-like reactions): 1.5%; usually subside within a few days after cessation of therapy. These reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
- Other: eosinophilia, 2%; genital pruritus or vaginitis, less than 1%.

Abnormalities in laboratory results of uncertain etiology
- Slight elevations in hepatic enzymes.
- Transient fluctuations in leukocyte count (especially in infants and children)
- Abnormal urinalysis; elevations in BUN or serum creatinine
- Positive direct Coombs' test
- False-positive tests for urinary glucose with Benedict's or Fehling's solution and Clinitest® tablets but not with Tes-Tape® (glucose enzymatic test strip, Lilly)

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MU School Of Medicine News

Compiled from material furnished by the Office of University Relations, Marshall University.

Dr. John C. Norman Named Chairman Of Surgery

Dr. John C. Norman, a West Virginia native internationally recognized for his heart surgery and his research in the artificial heart field, has become Chairman of Surgery for MU School of Medicine.

A graduate and former faculty member of Harvard Medical School, Doctor Norman spent 11 years as Director of Cardiovascular Surgical Research Laboratories at Texas Heart Institute. He still holds the faculty rank of Associate in Surgery at Harvard. He also has been affiliated with the University of Texas Health Sciences Center and the University of Medicine and Dentistry of New Jersey.

"Any medical school in the country would be proud to have Dr. John Norman on its staff, and we're especially so," said Dr. Lester R. Bryant, Dean of the School of Medicine. "He's known as one of the very best open-heart surgeons and as a leading researcher into mechanical support of the ailing circulatory system. Without a doubt his knowledge, insights and intense energy will enrich the School of Medicine and its programs."

In addition to his work with artificial hearts, Doctor Norman was actively involved in developing the clinical use of the intraaortic balloon pump.

He has served on two presidential panels relating to heart disease. He also has worked with the National Institutes of Health in various roles, including participation in the National Advisory General Medical Sciences Council. He is a Fellow of the Council on Cardiovascular Surgery of the American Heart Association, and has been a consultant for the Grants Review Section of the National Science Foundation. He has lectured widely in the United States and abroad.

He has written or co-authored more than 700 scientific publications. Among them are eight books, one co-authored with fellow cardiovascular surgeon Denton Cooley.

Doctor Norman received an honorary doctor of science degree from West Virginia University in 1984 and was named the Charleston Gazette-Mail's "West Virginian of the Year" in 1971.

School Of Medicine Grants Total $96,000

The School of Medicine has received grants totaling approximately $96,000 in recent months.

Drs. William Kopp, Monica Valentovic, Gary Wright and William McCumbee were awarded grants totaling nearly $40,000 from the state affiliate of the American Heart Association. Doctor Kopp will study autoimmune mechanisms in hypertension, Doctor Valentovic the modulation of the renin-angiotensin system in diabetes, Doctor Wright the effects of hypertensive factor on cAMP metabolism, and Doctor McCumbee whether cyclic AMP promotes macromolecule synthesis in blood vessels.

Dr. Darryle Schoepp has received two grants: an $18,268 National Institutes of Mental Health grant to identify a novel phosphoinositide stimulator and a $15,000 CIBA-GEIGY grant to investigate the interaction of herbicides with neuroendocrine receptors.

The school also received a $22,900 biomedical research support grant.

News In Brief

- Four faculty and staff members have taken on new responsibilities. Dr. Peter J. Kasvinsky of Biochemistry has been named Director of Research Development. Jan I. Fox has become Director of Academic Computing. While searches for department chairmen are under way, Dr. Patrick I. Brown is Acting Chairman of Anatomy and Dr. Gary L. Wright is Acting Chairman of Physiology.
- The American Association for Accreditation of Laboratory Animal Care has awarded full accreditation to the Animal Resources Facility of the School of Medicine.
- Dr. Gary O. Rankin, Chairman of Pharmacology, was among 50 faculty members highlighted in a special "Faculty Salute" sponsored by the American Association of Higher Education, Change Magazine and the Carnegie Foundation for the Advancement of Teaching. Nationally, 322 faculty members were nominated for the salute.
- Dr. Gary L. Wright, Acting Chairman of Physiology, was named the Outstanding Researcher of the Year by the MU Sigma Xi chapter for his work in cardiovascular physiology.
- School of Medicine students raised an estimated $3,000 for the Huntington Ronald McDonald House in a September 7 benefit football game. First- and second-year students were both players and fund-raisers.
- The President of the American Medical Student Association, Jeff Stolz, spoke at Marshall September 9. MU medical students are starting a chapter of that group.

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New Members

The following physicians were welcomed in August as new members of the West Virginia State Medical Association:

Eastern Panhandle:

Richard L. Fie, M. D., 1330 Amherst Street, Winchester, VA 22601, obstetrics and gynecology

W. David McWhorter, M. D., 1330 Amherst Street, Winchester, VA 22601, obstetrics and gynecology

John B. Willey, M. D., 1330 Amherst Street, Winchester, VA 22601, obstetrics and gynecology

Kanawha:

Jeffrey M. Behrens, M. D., Suite 2, 400 Division Street, South Charleston 25309, internal medicine

Karen Caple, M. D., Suite B-1, 3100 MacCorkle Avenue, SE, Charleston 25304, radiology/oncology

Michael Chancey, M. D., 111 King Drive, Evans 25241, emergency medicine

Malcolm L. Chaney, M. D., 415 Morris Street, Charleston 25301, family practice

Thomas D. Dorsey, D.O., 415 Morris Street, Charleston 25301, family practice

Richard Morris Fulks, M. D., Thomas Memorial Hospital, 4605 MacCorkle Avenue, SE, South Charleston 25309, pathology

John B. Kelly, D. O., 415 Morris Street, Charleston 25301, family practice

Marianne Lindroth, M. D., 1525 D Bridge Road, Charleston 25314, emergency medicine

Donald H. Moore, M. D., 804 Whispering Way, South Charleston 25303, emergency medicine

Bernadette Page, M. D., 1616 Berrywood Road, Charleston 25314, emergency medicine

Terry Ray Perrine, M. D., 1105 Bridge Road, Charleston 25314, family practice

Allen H. Schaeffer, M. D., Suite 709, 3100 MacCorkle Avenue, SE, Charleston 25304, internal medicine

Elizabeth Uy, M. D., 3412 Staunton Avenue, SE, Charleston 25304, pediatrics

McDowell:

Ryperto D. Dumapit, Jr., M. D., P. O. Box 474, Welch 24801, general practice

William J. McIntyre, M. D., P. O. Box 2196, Buckhannon 26201, emergency medicine

Monongalia:

Mary A. Antonelli, M. D., WVU Medical Center, Morgantown 26506, internal medicine

Mark Andrew Borsch, M. D., WVU Medical Center, Morgantown 26506, internal medicine

Kim A. Cockins, M. D., WVU Medical Center, Morgantown 26506, cardiovascular diseases/internal medicine

Joseph G. Feghali, M. D., WVU Medical Center, Morgantown 26506, ophthalmology

Norman D. Ferrari III, M. D., WVU Medical Center, Morgantown 26506, pediatrics/internal medicine

Mark G. Fuller, M. D., WVU Medical Center, Morgantown 26506, psychiatry

Jean L. Holley, M. D., WVU Medical Center, Morgantown 26506 internal medicine

Gregory Kujala, M. D., WVU Medical Center, Morgantown 26506, internal medicine

William D. Rose, M. D., WVU Medical Center, Morgantown 26506, emergency medicine

Donald G. Seibert, M. D., WVU Medical Center, Morgantown 26506, gastroenterology/internal medicine

Irene Tsironis, M. D., WVU Medical Center, Morgantown 26506 ophthalmology

Summers:

S. K. Shammaa, M. D., P. O. Box 370, Hinton 25951, pediatrics

Obituaries

JAMES A. RUSMISELL, JR., M. D.

Dr. James A. Rusmisell, Jr., of Buckhannon, retired general practitioner and hospital administrator, died August 6 at his home. He was 71.

Doctor Rusmisell had worked with his father, the late Dr. James A. Rusmisell, Sr., for many years and had practiced in Buckhannon for 45 years.

He was former Administrator of the Elizabeth Coplin Leonard Memorial Hospital in Buckhannon.

A native of Buckhannon, Doctor Rusmisell received his M. D. degree in 1941 from Temple University and interned at the former Charleston General Hospital.

Doctor Rusmisell, a veteran of World War II, was a member of the Southern Medical Association and an honorary and retired member of the West Virginia State Medical Association and American Medical Association.

Survivors include the wife, Betty Marie Smith Rusmisell; two sons, James A. Rusmisell III and John E. Rusmisell, and one daughter, Ann Rusmisell, all of Buckhannon.

Stop Smoking — Stay Trim

Smokers don't have to put on pounds when they drop the cigarette habit, according to the American Lung Association — the Christmas Seal People®.

Although quitting smoking can trigger metabolic changes that cause weight gain, chances are good you can lose the added few pounds in three to six months. The key to getting off the merry-go-round of quitting smoking, gaining weight, and going back to smoking is to accept the weight gain as only temporary and make not-smoking your number-one priority.

Staying-trim techniques are basic and sensible: eat (slowly) three nutritious meals a day, watch your calories, avoid sweets, and be sure to exercise regularly.

For more information on how to stop smoking and stay trim, contact your local Lung Association.

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Significantly reduced risk of endometrial hyperplasia

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PREMARIN used alone does not adversely affect lipid levels. In fact, a clinical study has shown a significant increase in HDL cholesterol—from 49.7 mg/dL to 56.4 mg/dL—and decrease in LDL cholesterol—from 165.1 mg/dL to 138.1 mg/dL—after one year of therapy with PREMARIN, 0.625 mg.[5]

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For atrophic vaginitis

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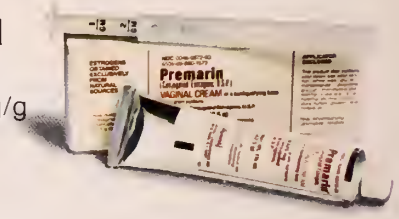

BRIEF SUMMARY *(FOR FULL PRESCRIBING INFORMATION AND PATIENT INFORMATION, SEE PACKAGE CIRCULARS.)*

PREMARIN® Brand of conjugated estrogens tablets, USP
PREMARIN® Brand of conjugated estrogens Vaginal Cream in a nonliquefying base

1 ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA

Three independent case control studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case control studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semiannual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration, it therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equiestrogenic doses.

2 ESTROGENS SHOULD NOT BE USED DURING PREGNANCY

The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a non-steroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb reduction defects. One case control study estimated a 4.7-fold increased risk of limb reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

DESCRIPTION: PREMARIN (conjugated estrogens, USP) contains a mixture of estrogens, obtained exclusively from natural sources, blended to represent the average composition of material derived from pregnant mares' urine. It contains estrone, equilin, and 17α-dihydroequilin, together with smaller amounts of 17α-estradiol, equilenin, and 17α-dihydroequilenin as salts of their sulfate esters. Tablets are available in 0.3 mg, 0.625 mg, 0.9 mg, 1.25 mg, and 2.5 mg strengths of conjugated estrogens. Cream is available as 0.625 mg conjugated estrogens per gram.

INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP): Moderate-to-severe *vasomotor* symptoms associated with the menopause. (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) **Osteoporosis (abnormally low bone mass)**. Atrophic vaginitis. Kraurosis vulvae. Female castration.

PREMARIN (conjugated estrogens) Vaginal Cream is indicated in the treatment of atrophic vaginitis and kraurosis vulvae. PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use: The lowest effective dose appropriate for the specific indication should be utilized. Studies of the addition of a progestin for 7 or more days of a cycle of estrogen administration have reported a lowered incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens. (See PRECAUTIONS.) The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (See Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

WARNINGS: Long-term continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. There are now reports that estrogens increase the risk of carcinoma of the endometrium in humans. (See Boxed Warning.) At the present time there is no satisfactory evidence that estrogens given to postmenopausal women increase the risk of cancer of the breast, although a recent study has raised this possibility. There is a need for caution in prescribing estrogens for women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease, or abnormal mammograms. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement; it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Preexisting uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:

a. Increased sulfobromophthalein retention.

b. Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3; increased norepinephrine-induced platelet aggregability.

c. Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG, free T4 concentration is unaltered.

d. Impaired glucose tolerance.

e. Decreased pregnanediol excretion.

f. Reduced response to metyrapone test.

g. Reduced serum folate concentration.

h. Increased serum triglyceride and phospholipid concentration. As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

ADVERSE REACTIONS: The following have been reported with estrogenic therapy, including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow, dysmenorrhea, premenstrual-like syndrome; amenorrhea during and after treatment; increase in size of uterine fibromyomata; vaginal candidiasis, change in cervical erosion and in degree of cervical secretion; cystitis-like syndrome; tenderness, enlargement, secretion (of breasts); nausea, vomiting, abdominal cramps, bloating, cholestatic jaundice; chloasma or melasma which may persist when drug is discontinued; erythema multiforme; erythema nodosum; hemorrhagic eruption; loss of scalp hair; hirsutism; steepening of corneal curvature; intolerance to contact lenses; headache, migraine, dizziness, mental depression, chorea; increase or decrease in weight; reduced carbohydrate tolerance; aggravation of porphyria, edema, changes in libido.

ACUTE OVERDOSAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSAGE AND ADMINISTRATION:

PREMARIN® Brand of conjugated estrogens tablets, USP

1. *Given cyclically for short-term use only*. For treatment of moderate to severe *vasomotor* symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.

2. *Given cyclically*. Female castration. Osteoporosis. Female castration—1.25 mg daily, cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control. Osteoporosis—0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off).

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three-to-six month intervals.

Usual dosage range: 2 to 4 g daily, intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

References:

1. Whitehead MI, Townsend PT, Pryse-Davies J, et al: Effects of estrogens and progestins on the biochemistry and morphology of the postmenopausal endometrium. *N Engl J Med* 1981;305:1599-1605. 2. Paterson MEL, Wade-Evans T, Sturdee DW, et al: Endometrial disease after treatment with oestrogens and progestogens in the climacteric. *Br Med J* 1980;280:822-824. 3. Magos AL, Brincat M, Studd JWW, et al: Amenorrhea and endometrial atrophy with continuous oral estrogen and progestogen therapy in postmenopausal women. *Obstet Gynecol* 1985;67:496-499. 4. Whitehead MI, Lane G, Siddle N, et al: Avoidance of endometrial hyperstimulation in estrogen-treated postmenopausal women. *Semin Reprod Endocrinol* 1983;1:1;41-52. 5. Barnes RB, Roy S, Lobo RA: Comparison of lipid and androgen levels after conjugated estrogen or depo-medroxyprogesterone acetate treatment in postmenopausal women. *Obstet Gynecol* 1985;66:216-219.

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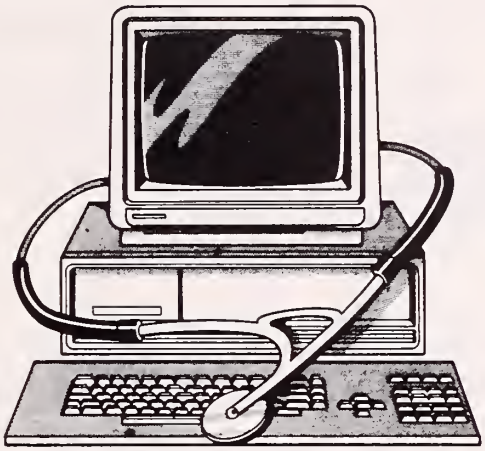

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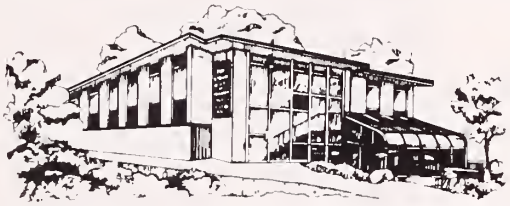

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REGISTRATION FEE is $75 for WVSMA members and $100 for non-members. Please make checks payable to "WEST VIRGINIA STATE MEDICAL ASSOCIATION."

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OVERNIGHT ACCOMMODATIONS: Physicians should communicate directly with the reservation manager of the hotel or motor inn of their choice, with the conference headquarters hotel setting aside rooms for registrants. *Reservations at the headquarters hotel should be made by January* 1. In order to obtain group rates, those who make reservations directly with the headquarters hotel should specify that they will be attending the Mid-Winter Clinical Conference. Group rates are $60 for a single room and $68 for a double. Those who register in advance for the Conference with the State Medical Association (see below) will receive from the Association a postage-paid Marriott reservation request card specifically designed for Mid-Winter Clinical Conference registrants.

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Resolutions

The following resolutions were adopted by the House of Delegates during the August 12-17 Annual Meeting of the West Virginia State Medical Association in White Sulphur Springs at the Greenbrier.

Resolution No. 1, presented by Ohio County Medical Society and pertaining to AMA representation, was amended and adopted as follows:

"WHEREAS, the American Medical Association was formed in the year 1847 as a Federation of State Medical Associations and;

WHEREAS, the Organization so formed, the American Medical Association, has had some notable organizational success and has contributed significantly to the health and welfare of United States citizens and of citizens of other nations worldwide and;

WHEREAS, in quest of needed membership the American Medical Association has in recent years seen fit to welcome increasing numbers of delegates representing specialty organizations and;

WHEREAS, there appears to be a proliferation of increasingly smaller groups with increasingly finer foci of specialty interests seeking delegate representation within the American Medical Association House of Delegates and;

WHEREAS, many, if not all, physicians represented in organizations seeking delegate representation have existing representation through presently represented organizations and;

WHEREAS, added numbers of delegates in the American Medical Association House of Delegates dilutes the voting strength and influence of those traditional and founding organizations and have tended to adversely affect involvement in these; therefore be it

RESOLVED, that there shall be imposed an indefinite moratorium on the consideration of new delegate representation from specialty societies within the House of Delegates of the American Medical Association and be it further

RESOLVED, that any members of specialty organizations considered worthy of representation within the American Medical Association House of Delegates be encouraged to seek representation through involvement in presently represented organizations."

Adopted was Resolution No. 2, presented by Ohio County Medical Society and pertaining to bio-ethics:

"WHEREAS, Bio-medical technology and bio-medical research have raised many significant moral questions, both in clinical and research Medicine; and

WHEREAS, The physicians of West Virginia are faced with legal and ethical decisions in their daily practice; and

WHEREAS, Bio-ethics has matured to a very high degree that specific assistance is now available to both physicians and researchers to resolve both ethical and moral problems; and

WHEREAS, There is a trend on the national level to require bio-ethics as part of continuing education for physicians; and

WHEREAS, Medical students are the physicians of tomorrow and should be in a position to handle ethical, moral and legal questions in the practice of Medicine; therefore be it

RESOLVED, That the West Virginia State Medical Association recommend that BIO-ETHICS be included in the curricula of all medical schools in the great State of West Virginia."

Resolution No. 3, presented by the Ohio County Medical Society and pertaining to tort reform, was amended and adopted as follows:

"WHEREAS, The West Virginia State Medical Association caused to be written SB 297, a tort reform bill acknowledged by all but organized trial lawyers as having great merit for the cause of justice; and

WHEREAS, SB 297 failed to see the light of day on the floor of the West Virginia Legislature as a result of shamefully self serving activity by members of the same organized trial lawyers group with more interest in their own welfare than that of their constituents; and

WHEREAS, the issues and inequities addressed in SB 297 today more than ever demand resolution; therefore be it

RESOLVED, That the West Virginia State Medical Association seek resubmission of a tort reform bill seeking reforms no less inclusive than contained in SB 297; and be it further

RESOLVED, That the West Virginia State Medical Association once again aggressively promote passage of such legislation with the public and with members of the West Virginia Legislature."

Adopted was the following substitute for Resolution No. 4, presented by Kanawha Medical Society and pertaining to punitive damages:

"WHEREAS, The insurance industry dropped physician's coverage for punitive damages in medical liability cases; and

WHEREAS, There are currently no restrictions or controls on individuals and/or attorneys filing for punitive damages currently in the State of West Virginia; and

WHEREAS, The interpretation of punitive damages by a jury system may be quite variable and imprecise;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association seek passage of legislation abolishing punitive damages."

(Resolution No. 5, presented by Kanawha Medicial Society and pertaining to confidentiality of Medical Board proceedings, records and findings, was not adopted at the recom-

mendation of the Resolutions Committee on the grounds that the intent of the resolution already has been established.)

Adopted was the following substitute for Resolution No. 6, presented by Kanawha Medical Society and pertaining to smokeless tobacco:

"WHEREAS, The use of smokeless tobacco among school-age children is an increasing problem throughout the country; and

WHEREAS, There is strong clinical evidence linking the use of smokeless tobacco to cancer of the oral cavity, periodontal disease, and various other health problems; and

WHEREAS, These products are presently readily available and their sale to minors is unrestricted;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association seek passage of legislation to:

1. Prohibit the sale of smokeless tobacco products to minors,
2. Prohibit the use of smokeless tobacco products in public school buildings, and
3. Establish a strong educational program to acquaint our youngsters with the health hazards involved in the use of all tobacco products."

Adopted was the following substitute for Resolution No. 7, presented by Kanawha Medical Society and pertaining to curfew for first-year drivers under age 17:

"WHEREAS, Each year numbers of teenagers are critically injured, maimed and disabled in motor vehicle accidents which are the leading cause of death in that age group; and

WHEREAS, The rate of such accidents is markedly higher in the 16- to 17-year age group; and

WHEREAS, Most of these accidents occur during the night-time hours; and

WHEREAS, Other states which have implemented curfews on drivers under age 17 have experienced a dramatic decline in their teenage highway accident mortality;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association seek passage of legislation placing a curfew on drivers under the age of 17 years."

Adopted was the following substitute for Resolution No. 8, presented by Kanawha Medical Society and pertaining to seat belts:

"WHEREAS, Each year numbers of West Virginians are killed, critically injured and disabled in motor vehicle accidents in which occupants have been unrestrained by the use of seat belts; and

WHEREAS, It has been well documented that the use of seat belts saves lives and reduces injury;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association seek passage of legislation mandating the use of seat belts."

(Resolution No. 9, presented by Kanawha Medical Society and pertaining to a bill to define medical malpractice, was not adopted at the recommendation of the Resolutions Committee.)

(Resolution No. 10, presented by Kanawha Medical Society and pertaining to standardized hospital staff application form, was not adopted at the recommendation of the Resolutions Committee.)

Adopted was the following substitute for Resolution No. 11, presented by Kanawha Medical Society and pertaining to additional funding for the Board of Medicine:

"WHEREAS, The current statute regarding the West Virginia Board of Medicine has given the Board certain powers and duties; and

WHEREAS, These powers are explicit, but there are restrictive dollar amounts attached to licensure, examination and registration fees, thus impeding the Board in collecting sufficient revenue to adequately carry out its functions; and

WHEREAS, There is insufficient staff to perform these mandated functions;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association seek legislation providng adequate funding for the West Virginia Board of Medicine."

Adopted was the following substitute for Resolution No. 12, presented by Kanawha Medical Society and pertaining to payments from third-party carriers:

"WHEREAS, Payments from third-party carriers are frequently made many months after the service has been rendered; and

WHEREAS, These third-party carriers have a level source of income in their premium payments; and

WHEREAS, Such delay in payment to the individual physician often results in management problems in medical offices;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association support legislation or other alternatives for prompt payment by third-party carriers."

Adopted was Resolution No. 13, presented by Kanawha Medical Society and pertaining to commendation of Dr. David Z. Morgan:

"WHEREAS, Dr. David Z. Morgan acted in an exemplary manner in working with the West Virginia Legislature during the 1986 session; and

WHEREAS, His tireless efforts resulted in passage of the first tort reform legislation in West Virginia;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association present him with a letter of commendation and encourage him to participate with the West Virginia Legislature as his time and energies will permit."

Adopted was the following substitute for Resolution No. 14, presented by Kanawha Medical Society and pertaining to federal legislation for liability reform:

"WHEREAS, Professional liability insurance is indeed in a crisis of affordability and availability; and

WHEREAS, The Legislature of West Virginia and other states have acted ineffectively and sluggishly in the area of tort reform; and

WHEREAS, This is a nationwide and not simply a state problem;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association endorse the passage of Federal legislation in the area of liability reform, specifically Senate Bill 1804 and House Bill 3865."

Adopted was the following substitute for Resolution No. 15, presented by the Central West Virginia Medical Society and pertaining to reimbursement for obstetrical services:

WHEREAS, The reimbursement for obstetrical services authorized by the Department of Human Services and by the Department of Health are below the cost of providing these services; and

WHEREAS, Many practitioners of obstetrics in West Virginia are for this reason discontinuing such services, thus adversely affecting care of medically indigent patients; and

WHEREAS, Inadequate reimbursement for obstetrical services will discourage other obstetrical practitioners from coming into this State; and

WHEREAS, The lack of adequate prenatal services to the medically indigent will lead to increased infant morbidity and mortality; and

WHEREAS, Medically indigent mothers comprise almost 50 per cent of West Virginia's annual 24,000 deliveries;

THEREFORE, BE IT RESOLVED, That the West Virginia State Medical Association advise the Department of Human Services and the Department of Health concerning the impending crisis in the provision of care for pregnant indigent patients whose care is the responsibility of these Departments; and

BE IT FURTHER RESOLVED, That the West Virginia State Medical Association urge these Departments to provide reimbursement levels which will adequately cover the cost of these services."

Adopted was the following substitute for Resolution No. 16, presented by Monongalia County Medical Society and pertaining to UMWA and Provident Participants:

"WHEREAS, UMWA, Provident and other third-party payors have been writing letters to their participants instructing them not to pay charges above what they approve; and

WHEREAS, They have instructed their participants that they are to be held harmless for those charges above what UMWA/Provident approve;

THEREFORE BE IT RESOLVED, That the West Virginia State Medical Association object to this practice, because the patient is responsible for his bill; and

BE IT FURTHER RESOLVED, That if third-party payors continue this practice, the West Virginia State Medical Association will support and/or institute appropriate legal action.

Adopted was the following substitute for Resolution No. 17, presented by the WVSMA Executive Committee and pertaining to the Health Policy Agenda:

"WHEREAS, the American Medical Association has requested that constituent organizations contribute funding to the Health Policy Agenda; and

WHEREAS, the policies of the Health Policy Agenda have not been presented in final form to these organizations; and

WHEREAS, the West Virginia State Medical Association has not had the opportunity to review the policies for which monetary support is requested;

THEREFORE BE IT RESOLVED, That the West Virginia State Medical Association withhold funding for implementation of the Health Policy Agenda until final document can be reviewed by the Association; and

BE IT FURTHER RESOLVED, That Association Delegates to the American Medical Association's House of Delegates convey this resolution to that body.

Resolution No. 18, presented by Ohio County Medical Society, was amended and adopted as follows:

"WHEREAS, Cost containment measures are increasingly evident in the practice of medicine; and

WHEREAS, Prepaid health care systems may have a strong tendancy to encourage the development of cost containment policies; and

WHEREAS, These measures may have a detrimental effect upon physicians' ability to provide quality care for their patients;

BE IT THEREFORE RESOLVED, That the West Virginia State Medical Association form a task force to gather information and evaluate the effects of cost containment and regulatory efforts by prepaid plans and other carriers on the quality of health care.

Resolution No. 19, presented by Dr. L. Walter Fix and pertaining to the commendation of Dr. George A. Shawkey, was amended and adopted as follows:

"WHEREAS, George Arthur Shawkey, M. D., has served admirably as Treasurer of the West Virginia State Medical Association for many years; and

WHEREAS, A great deal of his time, without compensation, has been devoted to this task;

WHEREAS, During this period the duties and responsibilities of this office have grown tremendously; and

WHEREAS, The funds have been invested wisely and with fiscal responsibility during this period; and

WHEREAS, He has submitted regular, complete and detailed reports;

BE IT RESOLVED, That the WVSMA's House of Delegates adopt this resolution expressing its appreciation for such service; and

BE IT FURTHER RESOLVED, That an appropriate plaque expressing appreciation be presented to Doctor Shawkey at some future meeting of the Association."

Annual Audit, 1985

The annual audit of receipts and disbursements of the West Virginia State Medical Association for the calendar year 1985 has been completed by the firm of Ernst & Whinney, Certified Public Accountants of Charleston. The completed audit, with accountants' report, follows:

ERNST & WHINNEY
900 KB&T Center

To the Council
West Virginia State Medical Association
Charleston, West Virginia

We have examined the statements of assets, liabilities, and fund balances arising from cash transactions of the several funds of the West Virginia State Medical Association as of December 31, 1985 and 1984, and the related statements of revenues and expenses of the unrestricted funds and changes in fund balances of the several funds for the years then ended. Our examinations were made in accordance with generally accepted auditing standards and, accordingly, included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

As described in Note A, the Association's policy is to prepare its financial statements on a modified cash basis; consequently, certain revenues and the related assets are recognized when received rather than when earned, and expenses are recognized when paid rather than when the obligation is incurred. Accordingly, the accompanying financial statements are not intended to present financial position and results of operations in conformity with generally accepted accounting principles.

In our opinion, the aforementioned financial statements present fairly the assets, liabilities, and fund balances arising from cash transactions of the several funds of the West Virginia State Medical Association at December 31, 1985 and 1984, and the revenues and expenses of the unrestricted funds and changes in fund balances of the several funds for the years then ended, on the basis of accounting described in Note A, which basis has been consistently applied.

Charleston, West Virginia
May 28, 1986

STATEMENTS OF ASSETS, LIABILITIES, AND FUND BALANCES ARISING FROM CASH TRANSACTIONS—Note A
WEST VIRGINIA STATE MEDICAL ASSOCIATION

	December 31 1985	December 31 1984
UNRESTRICTED FUNDS		
ASSETS		
Cash, including savings: 1985—$132,377; 1984—$115,096	$136,875	$131,401
Investments	521,850	587,664
Note receivable—Note B	25,000	25,000
Prepaid rent	20,000	20,000
Furniture and equipment (net of $12,260 accumulated depreciation)	110,340	
	$814,065	$764,065
LIABILITIES		
Due to restricted funds—Note E		$ 35,449
State and American Medical Association dues collected in advance	$ 86,432	55,484
	86,432	90,933
FUND BALANCES		
Undesignated	715,238	660,737
Designated for professional liability education	12,395	12,395
	727,633	673,132
CONTINGENT INCOME TAX LIABILITY—Note D		
	$814,065	$764,065
RESTRICTED FUNDS		
ASSETS		
Cash	$ 15,510	$ 9,231
Certificates of deposit	98,775	90,438
Due from unrestricted funds—Note E		35,449
Investment in common stock	4,250	4,250
	$118,535	$139,368
LIABILITIES		
Assessments collected on behalf of West Virginia State Medical Association Properties, Inc.—Note B	$ 10,632	$ 9,231
FUND BALANCES		
Medical scholarship	99,263	125,887
Endowment	4,250	4,250
Flood relief	4,390	
	107,903	130,137
	$118,535	$139,368

See notes to financial statements.

STATEMENTS OF REVENUES COLLECTED AND EXPENSES PAID—UNRESTRICTED FUNDS—Note A
WEST VIRGINIA STATE MEDICAL ASSOCIATION

	Years Ended December 31 1985	Years Ended December 31 1984
Revenues collected:		
Dues	$ 789,225	$ 804,398
Advertising	39,249	33,626
Interest	71,662	65,120
Contributions	4,825	3,625
Refund of expenses	2,224	1,138
Professional liability services—Note C	164,350	213,983
Other revenues, including grants from Endowment Fund: 1985—$928; 1984—$864	74,294	36,595
	1,145,829	1,158,485
Expenses paid and depreciation:		
Dues remitted to AMA	334,051	350,161
Salaries and wages	197,916	201,699
Employee benefits	39,158	30,960
Legal and accounting	21,298	4,346
Taxes—payroll and other	12,729	14,119
Office rent	71,608	24,665
President's stipend	5,000	
Office supplies	31,056	23,562
Telephone	14,686	7,289
Furnishings and office equipment	5,718	
Postage	18,895	14,048
Flood relief	25,000	
Travel	63,304	75,023
Convention speakers and supplies	73,454	62,158
Malpractice (Tort Reform)	11,000	
Publishing and printing	121,205	107,476
Public relations	16,598	
Depreciation expense	12,260	
Other expenses	52,584	27,369
	1,127,520	942,875
EXCESS OF REVENUES OVER EXPENSES	$ 18,309	$ 215,610

See notes to financial statements.

STATEMENTS OF CHANGES IN FUND BALANCES ARISING FROM CASH TRANSACTIONS—Note A
WEST VIRGINIA STATE MEDICAL ASSOCIATION
Years Ended December 31, 1985 and 1984

		RESTRICTED FUNDS			
	Unrestricted Funds	Medical Scholarship Fund	Endowment Fund	Building Assessment Fund	Flood Relief Fund
Balance, January 1, 1984	$457,522	$117,235	$4,250		
Excess of revenues over expenses	215,610				
Dues		22,992			
Repayment of scholarships		1,700			
Interest collected		8,008		$ 1,828	
Commissions collected				18,496	
Scholarships to medical students		(24,000)			
Refund of dues		(48)			
Dividends received			864		
Grant to unrestricted funds			(864)		
Amount transferred ($9,262) or transferable ($15,856) to West Virginia Medical Association Properties, Inc.—Note B				(20,324)	
Balance, December 31, 1984	673,132	125,887	4,250	-0-	
Excess of revenue over expenses	18,309				
Forgiveness of liability—Note E	36,192	(36,192)			
Dues and contributions		23,508			$19,350
Repayment of scholarships		1,700			
Interest collected		8,360		1,401	40
Scholarship to medical students		(24,000)			
Dividends received			928		
Grant to unrestricted funds			(928)		
Disbursements to flood relief projects					(15,000)
Amount transferable to West Virginia State Medical Association Properties, Inc.—Note B				(1,401)	
Balance, December 31, 1985	$727,633	$ 99,263	$4,250	$ -0-	$ 4,390

See notes to financial statements.

NOTES TO FINANCIAL STATEMENTS
WEST VIRGINIA STATE MEDICAL ASSOCIATION
December 31, 1985

NOTE A—PRESENTATION OF FINANCIAL STATEMENTS

The financial statements are presented using a modified cash basis of accounting. Under this basis of accounting, certain revenues, other than members' dues collected in advance, and the related assets are recognized when received rather than when earned, and expenses are recognized when paid rather than when the obligation is incurred. Members' dues collected in advance are recognized in the year for which they are assessed. In addition, prepaid rentals to related parties have been recorded on an accrual basis.

Investments, consisting of certificates of deposit and U.S. Treasury bills, are recorded at cost which approximates market value.

Office furnishings and equipment are recorded at historical cost and are being depreciated over a five year useful life on a straight-line basis.

The Association has designated a special assessment fund to be used for professional liability education. The funds are to be used to inform physicians about current and potential problems with malpractice insurance and are accounted for as unrestricted funds.

The Association provides scholarships to students attending Schools of Medicine at West Virginia and Marshall Universities for the purpose of defraying expenses incurred by such students. Under certain conditions, as set forth in the scholarship agreements, the scholarships are repayable to the Association in whole or in part. Scholarships to students and repayments are recorded as decreases and increases, respectively, in the Medical Scholarship Fund.

NOTE B—RELATED PARTIES

West Virginia State Medical Association Properties, Inc. ("Properties") was formed during 1980 to acquire land and construct an office building for the Association. This project was completed during the current year. The accounts of Properties have not been consolidated in the accompanying financial statements.

In conjunction with this activity, the Association collected assessments on behalf of Properties and also loaned Properties $25,000 in 1981 from the general fund at a stated interest rate of 15%. During 1985 and 1984, no interest has been paid to the Association.

In 1984, the Association advanced properties $20,000 from the general fund which is considered prepayment of future rents.

NOTE C—PROFESSIONAL LIABILITY SERVICES

During 1981, the Association entered into separate agreements with Continental Insurance Agency (CNA) and McDonough Caperton Shepherd Group, Inc. (MCSG) to provide educational and marketing services to the Association members relating to professional liability insurance. Under the terms of the agreement, the Association is to receive up to $100,000 a year from each company. During 1984, the Association received its first payments relating to this program amounting to $133,983 from CNA, of which $53,983 related to 1983 services, and $80,000 from MCSG. In 1985, the Association received payments of $84,350 from CNA and $80,000 from MCSG.

NOTE D—CONTINGENT INCOME TAX LIABILITY

Revenues of the Association are generally exempt from federal income tax under Section 501(c)(6) of the Internal Revenue Code. However, certain income, primarily advertising revenues and income received under agreements with insurance providers for their educational and marketing services and use of the Association's membership lists, is considered unrelated business income and is taxable to the extent it exceeds allocable expenses.

In an examination during 1984, the Internal Revenue Service contended that losses arising in prior years from advertising activities do not constitute net operating losses available for carryforward against taxable income. Approximately $30,000 of such prior year losses have been offset against unrelated business income in filing the Association's 1985 annual information return and approximately $80,000 would be available for carryforward from 1986 to 1998. Of the total losses available for carryforward approximately $16,000 will expire in 1996, $42,000 in 1997, and $22,000 in 1998.

The Association filed a protest with the United States Tax Court appealing the findings of the examining agent. No provision has been made in the financial statements for any liability for federal income taxes. If the Association is not successful in its appeal, the tax liability through 1985 would approximate $67,500.

NOTE E—FORGIVENESS OF LIABILITY

During 1985, the Executive Committee of the Association's Council approved a resolution to forgive the Unrestricted Funds liability of $36,192 to the Medical Scholarship Fund. This action had the effect of increasing the undesignated Unrestricted Funds balance and decreasing the Medical Scholarship Fund balance by $36,192, respectively.

NOTICE

A classified ad appeared in the May-July issues of the West Virginia Medical Journal by SLH in Thorsby, Alabama, soliciting individuals for a home mailing program. WVSMA has since learned that, through this ad, SLH has been soliciting fees for its "program." WVSMA does not approve of this solicitation in any manner and does not endorse SLH. Further, WVSMA has learned that, at least in one instance, while accepting a fee, SLH has not followed through on the information contained in its ad. We suggest that before sending any money to SLH, you should check with the Consumer Protection Division of the Attorney General's Office in West Virginia and Alabama.

23 States Approve Tort Reforms This Year

Twenty-three states have passed some form of tort reform this year, according to a comprehensive survey by the National Conference of State Legislatures issued as many of the nation's state legislatures adjourned for the summer.

The survey shows that the single most significant characteristic of this year's tort reform drive was the state legislatures' willingness to modify tort law for all civil actions generally —not just in the medical liability area.

While the effort to "reform" or legislatively limits the tort law's scope has, for the last 10 years, primarily been pushed by the medical profession, this year's legislative struggle was marked by the addition of a broad coalition of businesses, cities, and associations pushing for tort reform.

Necrology Report

The following is a list of West Virginia physicians whose deaths have been reported to the West Virginia State Medical Association during the past year:

1985

Apr. 25—Dante Castrodale
Welch

Apr. 27—William W. Strange
Huntington

Apr. 29—William E. Bray, Jr.
Huntington

Apr. 30—John E. Stone
Huntington

May 1—Franklin B. Murphy
Philippi

May 5—George M. Lyon
Delray Beach, FL

May 12—Wilson O. Grimm
Huntington

May 20—Michael M. Viggiano
New Martinsville

Aug. 4—Warner A. Laqueur
Beckley

Aug. 5—Delbert C. Smith
Fairmont

Aug. 21—Clarence I. Butte, Jr.
Matoaka

Aug. 24—Ruth Phillips Trotter
Morgantown

Sept. 9—Joseph S. Maxwell
Orlando, FL

Sept. 17—Ross E. Newman
Beckley

Sept. 19—George R. Clarke
Wheeling

Oct. 1—Wirt L. Davis
Summersville, SC

Oct. 9—Ralph J. Holloway
Charleston

Nov. 5—Harold B. Luscombe
Westport, CT

Nov. 15—Joe W. Rhudy
Morgantown

Dec. 5—Leonard M. Eckmann
Charleston

1986

Jan. 24—William L. Cooke
Charleston

Mar. 4—Archbold M. Jones
Parkersburg

Mar. 10—Thomas S. Knapp
Charleston

Apr. 16—Harold Van Hoose
Ft. Myers, FL

May 16—H. George Bateman
Williamstown

June 9—Maria A. Espanol
Williamson

July 14—Donald Roberts
Elkins

July 28—Wirt W. Duff
Elkview

Respectfully submitted

Merwyn G. Scholten
Executive Director

Charleston, WV
August 13, 1986

Electromyography and Nerve Conduction Studies.

★

Prasadarao B. Mukkamala, MD
Diplomate of American Board of Physical Medicine and Rehabilitation.

Active member of American Association of Electromyography and electrodiagnosis.
(Admitted by examination)

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Charleston, WV 25301

Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8½ by 11 in.) white paper. Wide margins at least 1¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 4106, Charleston, W. Va. 25364.

Team Rehab

Comprehensive rehabilitation requires a diverse array of specialists.

NAME: David H. Liebeskind, M.D.
OCCUPATION: Medical Director, OVMC Rehabilitation Center at Woodsdale.
BACKGROUND: Came to the Ohio Valley from Los Angeles, CA. Served as Director of Rehabilitation Department at St. Francis Medical Center in Los Angeles. Trained at Albert Einstein School of Medicine, New York City. Board Certified in Physical Medicine and Rehabilitation.
JOB SUMMARY: Leader of the rehabilitation team, responsible for prescribing, coordinating and supervising all facets of a total comprehensive rehabilitation program.

Dr. Liebeskind serves as both leader and member of Team Rehab, coordinating the expertise of trained specialists to help patients achieve their potential in restoring their former lifestyles. Because a disease or injury can leave an individual with numerous, complex disabilities, each requiring the attention of a specialized professional, the team approach is the most effective method of rehabilitation. Dr. Liebeskind acts as the source of medical information and direction for the therapists and rehabilitation nurses, and develops each patient's individualized rehab program. "I have always liked dealing with complex situations," said Dr. Liebeskind. "One of the reasons I like rehab is that it is multi-faceted. It's dealing with problems that are more global in nature rather than just the purely medical aspects—it's treating the **total** patient."

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Convenience
Economy

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J-6138 January 1986

Before prescribing, see complete prescribing information in SK&F CO. literature or *PDR*. The following is a brief summary.

* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired. If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of triamterene and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Angiotensin-converting enzyme (ACE) inhibitors can elevate serum potassium; use with caution with 'Dyazide'. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary. Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function. Thiazides may add to or potentiate the action of other antihypertensive drugs. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: 'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.

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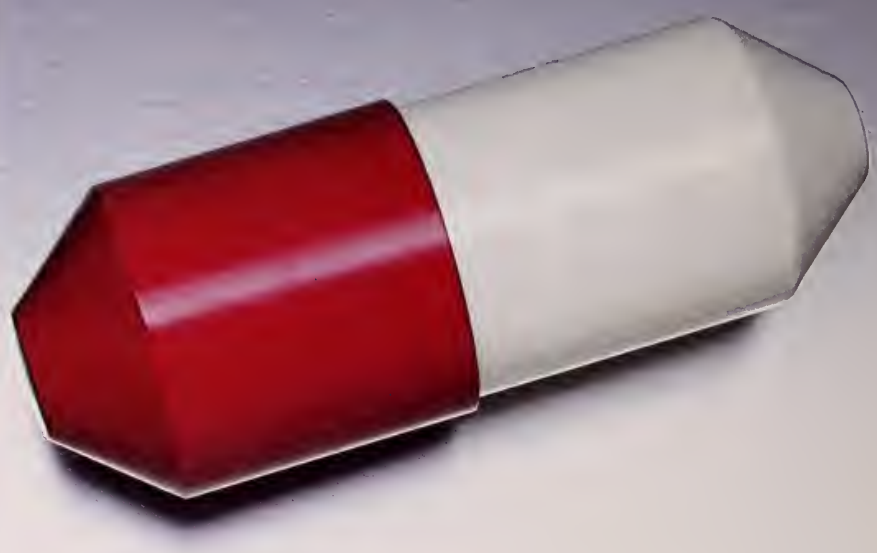

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DO YOU KNOW that over 1,000 Auxilians are working for you, your spouse and your community in West Virginia? The Auxiliary to the West Virginia State Medical Association is part of a network of the 80,000 physician spouses belonging to the AMA Auxiliary who are united by a common bond for a common goal: to improve the health and quality of life for all people.

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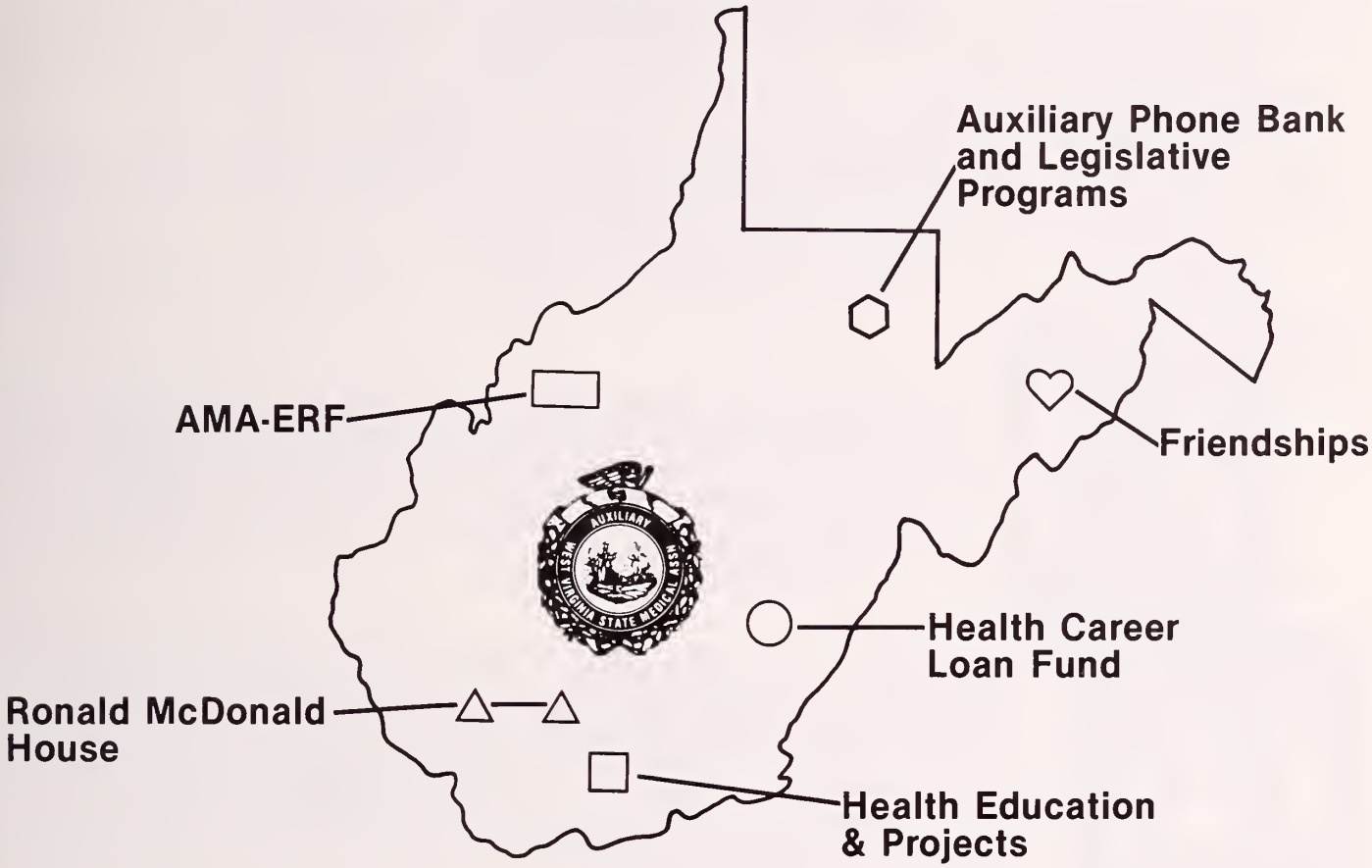


AUXILIANS HAVE FOUND THAT MEMBERSHIP DOESN'T COST BUT RATHER PAYS TO BELONG. AUXILIANS HELP INFLUENCE THE FUTURE DIRECTION OF MEDICINE IN THEIR COMMUNITIES. DO YOU WANT TO BE A PART OF THAT PLAN? We know there are many spouses in West Virginia who have the talent, skill and desire to become involved and have yet to join. This is an open invitation to join.

PHYSICIANS PLEASE BRING THIS NOTICE TO THE ATTENTION OF YOUR SPOUSE. Simply ask your spouse to return the form below to the Auxiliary to the West Virginia State Medical Association, P. O. Box 4106, Charleston, WV 25364.

- -

☐ **YES,** I wish to become a member of the Auxiliary to the West Virginia State Medical Association, the AMA Auxiliary and my local chapter. Please indicate your name, address, and phone number. A local representative will be in touch with you.

NAME _____

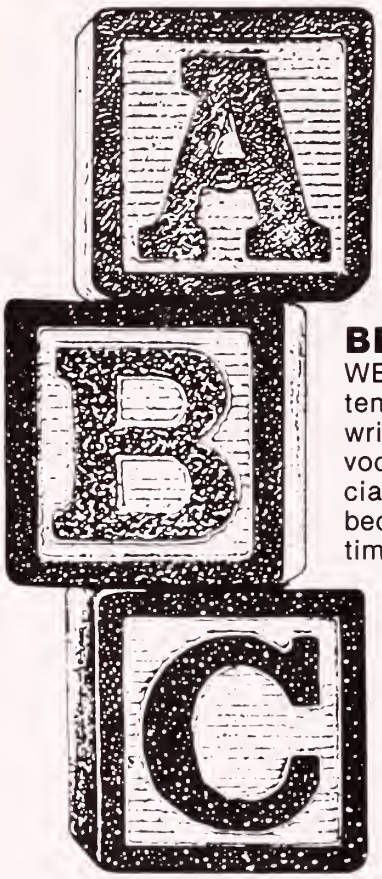
ADDRESS _____

CITY _____ STATE _____ ZIP CODE _____

PHONE NUMBER _____

ABC's of PAC

It is not that complicated to understand and become involved with your state PAC; WESPAC, the West Virginia State Medical Association's Political Action Committee and AMPAC, the American Medical Association's Political Action Committee. Joining WESPAC makes you an automatic member of AMPAC. While it is not as simple as reciting the ABC's, all it takes is that initial **ACTION** to learn about WESPAC/AMPAC, **BECOME** involved and make that **COMMITTMENT** to political action that will strengthen medicine's impact on the political process.



ACTION — WESPAC/AMPAC means action for it brings bipartisan support for candidates to the West Virginia State Legislature and the U. S. Congress. Support comes in the form of financial contributions, voter registration and get-out-the-vote drives, absentee ballot activities, survey research for candidates media and direct mail advertising, and campaign work.

BECOME — Become informed about the political process, by joining WESPAC/AMPAC and start receiving their publications and mailings, attend their sponsored political education workshops and meetings. Also write letters to your congressman, state legislators and to the editor advocating medicine's position on certain issues. Other suggested physician/spouse political activities include testifying at the state Capitol, becoming a legislative liason for your specialty society, volunteering your time and talents to the candidates of your choice.

COMMITMENT — Make that commitment today and join WESPAC/AMPAC. Serve on the WVSMA Legislation Committee or WESPAC Board. Sign on as a legislative key contact and volunteer to assist the APB (Auxiliary Phone Bank).

Categories for membership for the period January 1 to December 31 are $100 for a Sustainer membership in which a Sustainer Pin is issued. Fifty dollars of the contribution goes to AMPAC, the AMA political action committee. A $50 regular membership keeps $30 in the state and sends $20 to AMPAC. Corporate checks can be used only for educational purposes since federal and state election laws prohibit corporations from contributing to political candidates. Make your personal check payable to WESPAC and mail today to WESPAC, P. O. Box 4106, Charleston, West Virginia 25364.

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INTERNAL MEDICINE

Internist — BE/BC to join multi-specialty group in small rural West Virginia community. Salary 75 K with excellent fringe benefits including paid mal-practice. Reply to West Virginia Medical Journal, c/o Community Health Classifieds, P. O. Box 4106, Charleston, WV 25364.

UROLOGY

Urologist—BE/BC to join multi-specialty clinic in rural West Virginia community. Salary 75 to 80 K with excellent fringe benefits. Reply to West Virginia Medical Journal, c/o Community Health Classifieds, P. O. Box 4106, Charleston, WV 25364.

PHYSICIANS WANTED: For full and part-time positions in Urgent Care Center in Wheeling, West Virginia. Malpractice, CME, Vacation, Health Insurance provided. Flexible scheduling. Call 304-232-1020 or write Bruce Walmsley, M. D., 24 Homestead Ave., Wheeling, WV 26003.

CLASSIFIED RATES: $10 for 10 lines; for every line over 10 lines there will be an additional charge of $2 per line. Cost to be figured after ad has been set by the printer. $15 for confidential ad (10 lines).
DEADLINE: Copy must be received by the 10th of the month preceding the month of issue: e.g., copy for the August issue is due by July 10. Send copy to: West Virginia Medical Journal, P.O. Box 4106, Charleston, WV 25364. Telephone: (304) 925-0342.

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BLACKSBURG, VIRGINIA — Directorship and full time positions available at 146 bed hospital. Must be board certified/prepared in Emergency Medicine or have prior emergency department experience. Please submit resume to Emergency Consultants, Inc., One Windemere Place, Room 37, Petoskey, MI 49770; 1-800-253-7092 or in Michigan 1-800-632-9650.

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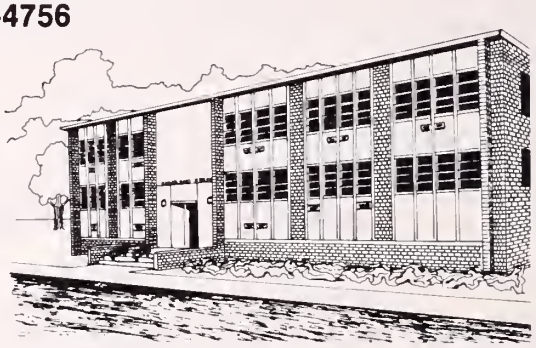

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"...onset of action is rapid...provides sleep with no rebound effect to agitate the patient the following day"

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After 15 years, the experts still concur about the continuing value of Dalmane (flurazepam HCl/Roche). It provides sleep that satisfies patients... and the wide margin of safety that satisfies you.

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sleep that satisfies

15-mg/30-mg
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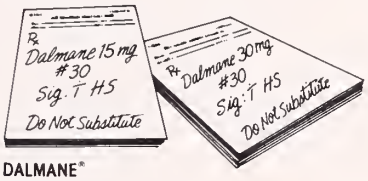
References: **1.** Kales J, *et al: Clin Pharmacol Ther 12:*691-697, Jul-Aug 1971. **2.** Kales A, *et al. Clin Pharmacol Ther 18:*356-363, Sep 1975. **3.** Kales A, *et al: Clin Pharmacol Ther 19:*576-583, May 1976. **4.** Kales A, *et al: Clin Pharmacol Ther 32:*781-788, Dec 1982. **5.** Frost JD Jr, DeLucchi MR. *J Am Geriatr Soc 27:*541-546, Dec 1979. **6.** Dement WC, *et al: Behav Med,* pp. 25-31, Oct 1978. **7.** Kales A, Kales JD: *J Clin Psychopharmacol 3:*140-150, Apr 1983. **8.** Tennant FS, *et al:* Symposium on the Treatment of Sleep Disorders, Telecanference, Oct 16, 1984. **9.** Greenblatt DJ, Allen MD, Shader RI: *Clin Pharmacol Ther 21:*355-361, Mar 1977.



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Contraindications: Known hypersensitivity to flurazepam HCl, pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patients to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Withdrawal symptoms rarely reported, abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, *e.g.*, excitement, stimulation and hyperactivity.

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Musings From An Ivory Tower
(See 'In My Opinion' Article, Page 444)

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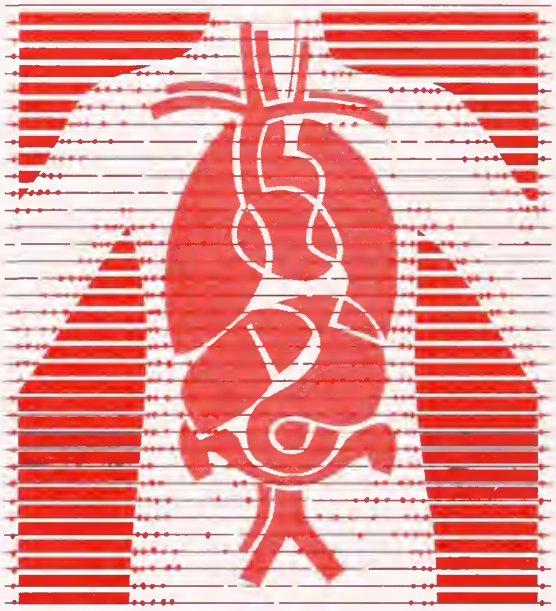

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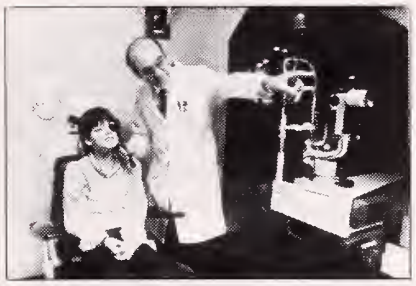

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West Virginia Medical JOURNAL

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Front Cover

Typical fall scene in West Virginia with deer. Photo courtesy of West Virginia Department of Commerce.

Team Rehab

Comprehensive rehabilitation requires a diverse array of specialists.

NAME: Linda Stidd, R.N.
OCCUPATION: Head Nurse/Rehabilitation, OVMC Rehabilitation Center at Woodsdale.
BACKGROUND: Earned R. N. from Ohio Valley General Hospital School of Nursing. Received special training in Rehabilitation Nursing at The Institute of Physical Medicine and Rehabilitation, Peoria, Ill. Currently working on Bachelor of Science in Nursing at Ohio University.
JOB SUMMARY: Coordinates and directs the Team Rehab nursing staff in providing patient care.

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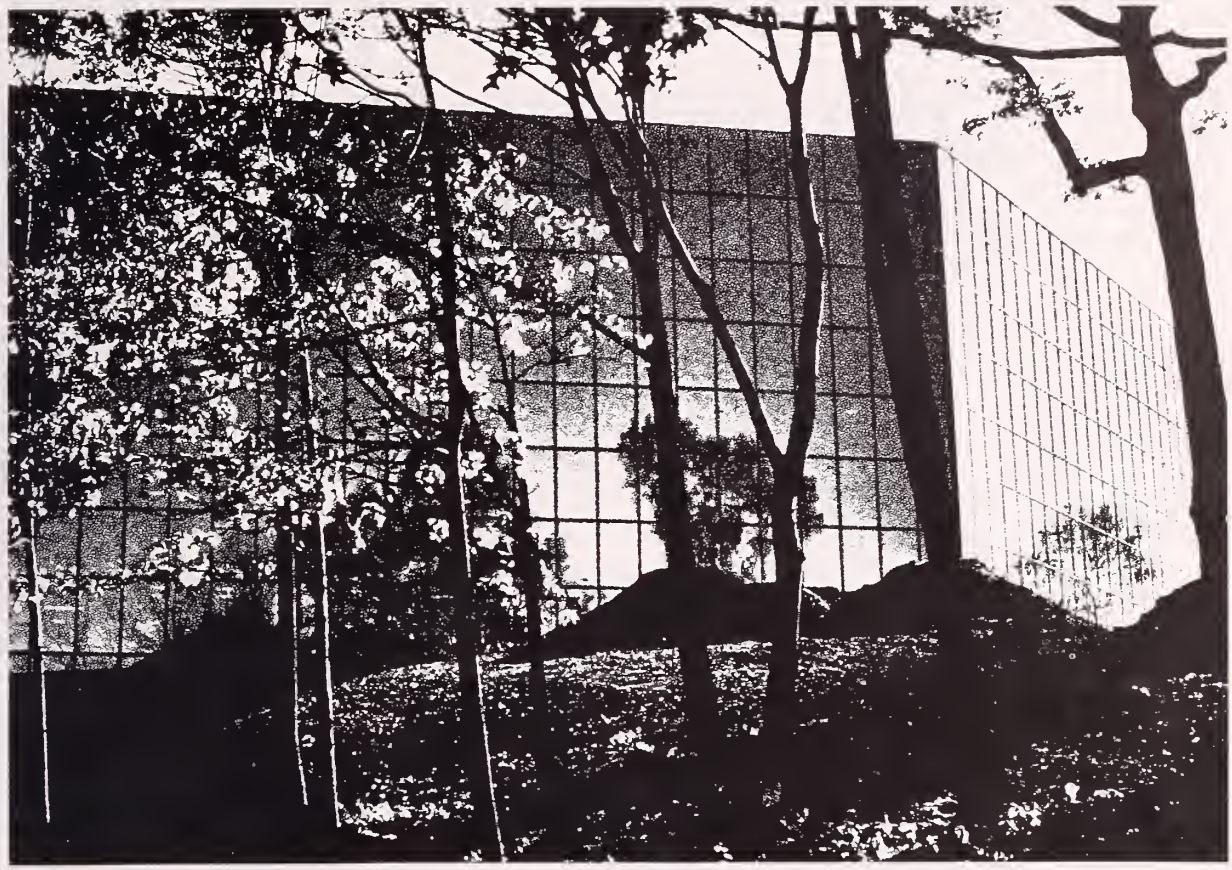

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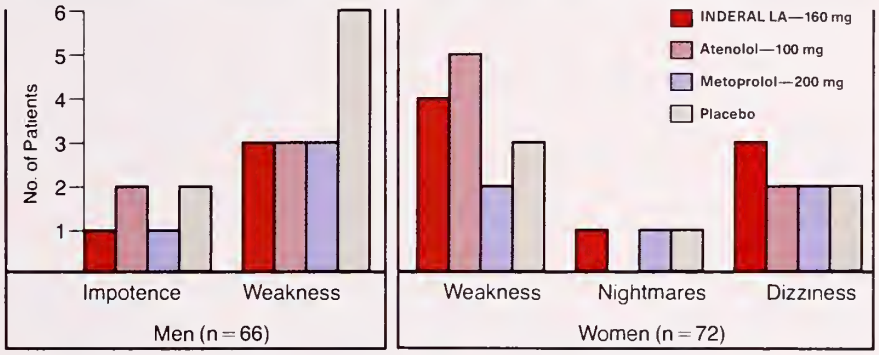

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CONTRAINDICATIONS

Propranolol hydrochloride (INDERAL® LA): Propranolol is contraindicated in: 1) cardiogenic shock, 2) sinus bradycardia and greater than first degree block, 3) bronchial asthma; 4) congestive heart failure (see WARNINGS) unless the failure is secondary to a tachyarrhythmia treatable with propranolol.

Hydrochlorothiazide: Hydrochlorothiazide is contraindicated in patients with anuria or hypersensitivity to this or other sulfonamide-derived drugs.

WARNINGS

Propranolol hydrochloride (INDERAL® LA): CARDIAC FAILURE. Sympathetic stimulation may be a vital component supporting circulatory function in patients with congestive heart failure, and its inhibition by beta blockade may precipitate more severe failure. Although beta blockers should be avoided in overt congestive heart failure, if necessary, they can be used with close follow-up in patients with a history of failure who are well compensated, and are receiving digitalis and diuretics. Beta-adrenergic blocking agents do not abolish the inotropic action of digitalis on heart muscle.

IN PATIENTS WITHOUT A HISTORY OF HEART FAILURE, continued use of beta blockers can, in some cases, lead to cardiac failure. Therefore, at the first sign or symptom of heart failure, the patient should be digitalized and/or treated with diuretics, and the response observed closely, or propranolol should be discontinued (gradually, if possible).

IN PATIENTS WITH ANGINA PECTORIS, there have been reports of exacerbation of angina and, in some cases, myocardial infarction following *abrupt* discontinuance of propranolol therapy. Therefore, when discontinuance of propranolol is planned the dosage should be gradually reduced and the patient carefully monitored. In addition, when propranolol is prescribed for angina pectoris, the patient should be cautioned against interruption or cessation of therapy without the physician's advice. If propranolol therapy is interrupted and exacerbation of angina occurs, it usually is advisable to reinstitute propranolol therapy and take other measures appropriate for the management of unstable angina pectoris. Since coronary artery disease may be unrecognized, it may be prudent to follow the above advice in patients considered at risk of having occult atherosclerotic heart disease who are given propranolol for other indications.

THYROTOXICOSIS: Beta blockade may mask certain clinical signs of hyperthyroidism. Therefore, abrupt withdrawal of propranolol may be followed by an exacerbation of symptoms of hyperthyroidism, including thyroid storm. Propranolol does not distort thyroid function tests.

IN PATIENTS WITH WOLFF-PARKINSON-WHITE SYNDROME, several cases have been reported in which, after propranolol, the tachycardia was replaced by a severe bradycardia requiring a demand pacemaker. In one case this resulted after an initial dose of 5 mg propranolol.

MAJOR SURGERY: The necessity or desirability of withdrawal of beta-blocking therapy prior to major surgery is controversial. It should be noted, however, that the impaired ability of the heart to respond to reflex adrenergic stimuli may augment the risks of general anesthesia and surgical procedures.

Nonallergic Bronchospasm (eg, chronic bronchitis, emphysema)—PATIENTS WITH BRONCHOSPASTIC DISEASES SHOULD, IN GENERAL, NOT RECEIVE BETA BLOCKERS. INDERAL should be administered with caution, since it may block bronchodilation produced by endogenous and exogenous catecholamine stimulation of beta receptors.

DIABETES AND HYPOGLYCEMIA: Beta-adrenergic blockade may prevent the appearance of certain premonitory signs and symptoms (pulse rate and pressure changes) of acute hypoglycemia in labile insulin-dependent diabetes. In these patients, it may be more difficult to adjust the dosage of insulin. Hypoglycemic attacks may be accompanied by a precipitous elevation of blood pressure.

Hydrochlorothiazide: Thiazides should be used with caution in severe renal disease. In patients with renal disease, thiazides may precipitate azotemia. In patients with impaired renal function, cumulative effects of the drug may develop.

Thiazides should also be used with caution in patients with impaired hepatic function or progressive liver disease, since minor alterations of fluid and electrolyte balance may precipitate hepatic coma.

Thiazides may add to or potentiate the action of other antihypertensive drugs. Potentiation occurs with ganglionic or peripheral adrenergic-blocking drugs.

Sensitivity reactions may occur in patients with a history of allergy or bronchial asthma.

The possibility of exacerbation or activation of systemic lupus erythematosus has been reported.

PRECAUTIONS

Propranolol hydrochloride (INDERAL® LA): GENERAL. Propranolol should be used with caution in patients with impaired hepatic or renal function. Propranolol is not indicated for the treatment of hypertensive emergencies.

Beta-adrenoreceptor blockade can cause reduction of intraocular pressure. Patients should be told that propranolol may interfere with the glaucoma screening test. Withdrawal may lead to a return of increased intraocular pressure.

CLINICAL LABORATORY TESTS: Elevated blood urea levels in patients with severe heart disease, elevated serum transaminase, alkaline phosphatase, lactate dehydrogenase.

DRUG INTERACTIONS: Patients receiving catecholamine-depleting drugs, such as reserpine, should be closely observed if propranolol is administered. The added catecholamine-blocking action may produce an excessive reduction of resting sympathetic nervous activity, which may result in hypotension, marked bradycardia, vertigo, syncopal attacks, or orthostatic hypotension.

CARCINOGENESIS, MUTAGENESIS, IMPAIRMENT OF FERTILITY: Long-term studies in animals have been conducted to evaluate toxic effects and carcinogenic potential. In 18-month studies, in both rats and mice, employing doses up to 150 mg/kg/day, there was no evidence of significant drug-induced toxicity. There were no drug-related tumorigenic effects at any of the dosage levels. Reproductive studies in animals did not show any impairment of fertility that was attributable to the drug.

PREGNANCY: Pregnancy Category C. Propranolol has been shown to be embryotoxic in animal studies at doses about 10 times greater than the maximal recommended human dose. There are no adequate and well-controlled studies in pregnant women. Propranolol should be used during pregnancy only if the potential benefit justifies the potential risk to the fetus.

NURSING MOTHERS: Propranolol is excreted in human milk. Caution should be exercised when propranolol is administered to a nursing mother.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

Hydrochlorothiazide: GENERAL: Periodic determination of serum electrolytes to detect possible electrolyte imbalance should be performed at appropriate intervals.

All patients receiving thiazide therapy should be observed for clinical signs of fluid or electrolyte imbalance, namely: Hyponatremia, hypochloremic alkalosis, and hypokalemia. Serum and urine electrolyte determinations are particularly important when the patient is vomiting excessively or receiving parenteral fluids. Medication such as digitalis may also influence serum electrolytes. Warning signs irrespective of cause are: Dryness of mouth, thirst, weakness, lethargy, drowsiness, restlessness, muscle pains or cramps, muscular fatigue, hypotension, oliguria, tachycardia, and gastrointestinal disturbances such as nausea and vomiting.

Hypokalemia may develop, especially with brisk diuresis, when severe cirrhosis is present, or during concomitant use of corticosteroids or ACTH.

Interference with adequate oral electrolyte intake will also contribute to hypokalemia. Hypokalemia can sensitize or exaggerate the response of the heart to the toxic effect of digitalis (eg, increased ventricular irritability). Hypokalemia may be avoided or treated by use of potassium supplements, such as foods with a high potassium content.

Any chloride deficit is generally mild and usually does not require specific treatment, except under extraordinary circumstances (as in liver or renal disease). Dilutional hyponatremia may occur in edematous patients in hot weather; appropriate therapy is water restriction, rather than administration of salt, except in rare instances when the hyponatremia is life-threatening. In actual salt depletion, appropriate replacement is the therapy of choice.

Hyperuricemia may occur or frank gout may be precipitated in certain patients receiving thiazide therapy.

Insulin requirements in diabetic patients may be increased, decreased, or unchanged. Diabetes mellitus which has been latent may become manifest during thiazide administration.

If progressive renal impairment becomes evident, consider withholding or discontinuing diuretic therapy.

Thiazides may decrease serum PBI levels without signs of thyroid disturbance.

Calcium excretion is decreased by thiazides. Pathologic changes in the parathyroid gland with hypercalcemia and hypophosphatemia have been observed in a few patients on prolonged thiazide therapy. The common complications of hyperparathyroidism, such as renal lithiasis, bone resorption, and peptic ulceration, have not been seen. Thiazides should be discontinued before carrying out tests for parathyroid function.

DRUG INTERACTIONS: Thiazide drugs may increase the responsiveness to tubocurarine.

The antihypertensive effects of thiazides may be enhanced in the postsympathectomy patient. Thiazides may decrease arterial responsiveness to norepinephrine. This diminution is not sufficient to preclude effectiveness of the pressor agent for therapeutic use.

PREGNANCY: Pregnancy Category C. Thiazides cross the placental barrier and appear in cord blood. The use of thiazides in pregnancy requires that the anticipated benefit be weighed against possible hazards to the fetus. These hazards include fetal or neonatal jaundice, thrombocytopenia, and possibly other adverse reactions which have occurred in the adult.

NURSING MOTHERS: Thiazides appear in human milk. If use of the drug is deemed essential, the patient should stop nursing.

PEDIATRIC USE: Safety and effectiveness in children have not been established.

ADVERSE REACTIONS

Propranolol hydrochloride (INDERAL® LA): Most adverse effects have been mild and transient and have rarely required the withdrawal of therapy.

Cardiovascular: Bradycardia, congestive heart failure, intensification of AV block, hypotension; paresthesia of hands, thrombocytopenic purpura, arterial insufficiency, usually of the Raynaud type.

Central Nervous System: Lightheadedness, mental depression manifested by insomnia, lassitude, weakness, fatigue; reversible mental depression progressing to catatonia, visual disturbances, hallucinations, an acute reversible syndrome characterized by disorientation for time and place, short-term memory loss, emotional lability; slightly clouded sensorium, and decreased performance on neuropsychometrics.

Gastrointestinal: Nausea, vomiting, epigastric distress, abdominal cramping, diarrhea, constipation, mesenteric arterial thrombosis, ischemic colitis.

Allergic: Pharyngitis and agranulocytosis, erythematous rash; fever combined with aching and sore throat, laryngospasm and respiratory distress.

Respiratory: Bronchospasm.

Hematologic: Agranulocytosis, nonthrombocytopenic purpura, thrombocytopenic purpura.

Auto-Immune: In extremely rare instances, systemic lupus erythematosus has been reported.

Miscellaneous: Alopecia, LE-like reactions, psoriasiform rashes, dry eyes, male impotence; and Peyronie's disease have been reported rarely. Oculomucocutaneous reactions involving the skin, serous membranes, and conjunctivae reported for a beta blocker (practolol) have not been associated with propranolol.

Hydrochlorothiazide:

Gastrointestinal: Anorexia, gastric irritation, nausea, vomiting, cramping, diarrhea, constipation, jaundice (intrahepatic cholestatic jaundice), pancreatitis, sialadenitis.

Central Nervous System: Dizziness, vertigo, paresthesias, headache, xanthopsia.

Hematologic: Leukopenia, agranulocytosis, thrombocytopenia, aplastic anemia.

Cardiovascular: Orthostatic hypotension (may be aggravated by alcohol, barbiturates, or narcotics).

Hypersensitivity: Purpura, photosensitivity, rash, urticaria, necrotizing angiitis (vasculitis, cutaneous vasculitis); fever; respiratory distress, including pneumonitis, anaphylactic reactions.

Other: Hyperglycemia, glycosuria, hyperuricemia; muscle spasm; weakness, restlessness, transient blurred vision.

Whenever adverse reactions are moderate or severe, thiazide dosage should be reduced or therapy withdrawn.

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REFERENCE:

1. Ravid M, Lang R, Jutrin I. The relative antihypertensive potency of propranolol, oxprenolol, atenolol, and metoprolol given once daily. *Arch Intern Med* 1985;145:1321–1323.

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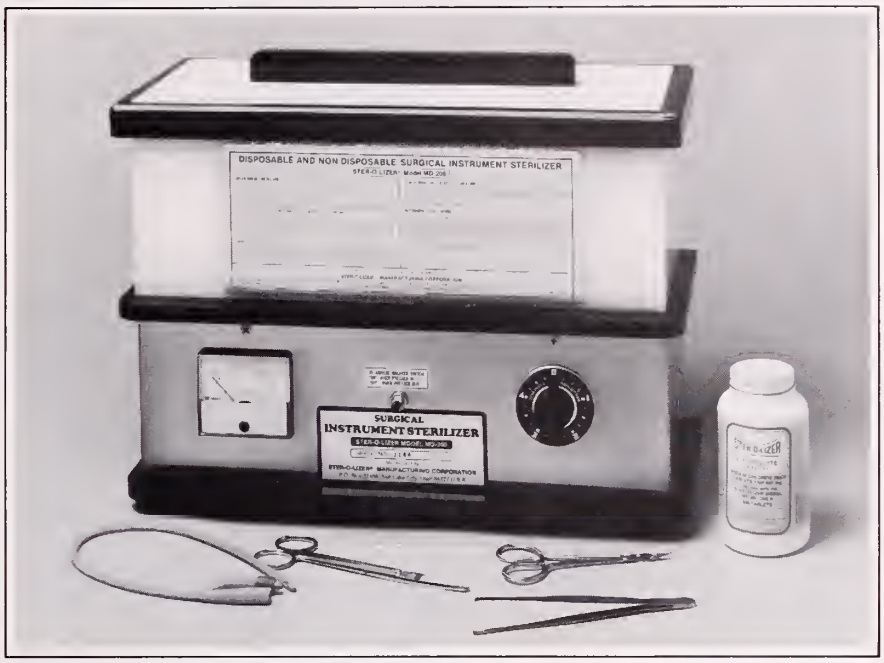

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Newer Antiarrhythmic Drugs

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This article reviews the pharmacology and clinical usefulness of the newer antiarrhythmic drugs. As a group, these drugs will be a valuable addition to the cardiologists' armamentarium, but the ideal antiarrhythmic having high efficacy, easy administration, low cost, and minimal side effects, is yet to be found.

A number of antiarrhythmic drugs have recently been approved for release by the Food and Drug Administration (FDA), and several others are expected to be approved during 1986. The major use for most of these drugs will be in treating serious ventricular arrhythmias not successfully treated with one of the more conventional antiarrhythmic agents. This article reviews the pharmacology of these newer drugs and their role in managing cardiac arrhythmias.

Drug Classification

Several classifications of the antiarrhythmic drugs have been proposed, and the most widely used is derived from Vaughan Williams[1] (Table 1). Class I drugs depress the upstroke velocity of the cellular action potential and are subdivided into groups IA, IB, and IC based on whether they increase, decrease, or have little effect on the action potential duration. Class II drugs are beta blockers, Class III drugs primarily increase the action potential duration, and Class IV drugs are calcium antagonists.

Tocainide

Tocainide (Tonocard) is a Class IB drug which was released in late 1984 for supression of symptomatic ventricular arrhythmias. It has electrophysiologic properties similar to lidocaine, and the response to IV lidocaine tends to predict the response to oral tocainide, though many exceptions occur.[2] The usual (adult) starting dose is 400 mg every eight hours, and the long-term dose averages 1200 to 1800 mg/day in three (sometimes two) divided doses. Dose reductions may be needed with renal, hepatic, or heart failure. It is supplied in 400 and 600 mg unscored tablets.

Side effects are common and, in our experience, in a generally elderly population, they occur in about half of all patients. These include a variety of central nervous system symptoms such as lightheadedness, tremor, ataxia, paresthesias, and visual disturbances. Nausea and anorexia are also common. These side effects may respond to dosage reduction or to taking the drug with meals, but often drug discontinuation is necessary. Uncommon, but potentially more serious, reactions include blood dyscrasias and pulmonary fibrosis. As with all other antiarrhythmics, tocainide has the potential to aggravate, rather than suppress, ventricular arrhythmias, and this possibility needs to be considered if premature ventricular complexes (PVCs) increase in frequency after the drug is started.

Mexiletine

Mexiletine (Mexitil) is another Class IB drug which was released in March of this year. It shares many properties with lidocaine and tocainide.[3] The recommended starting dose is 200 mg given every eight hours with food or antacids. Most patients who respond to this drug (about 30 per cent of all patients with PVCs) are controlled on total daily doses of 600-900 mg; the dose should not exceed 1200 mg per day. Dose reductions may be needed with heart, liver or renal failure. It will be supplied in capsules of 150 mg, 200 mg, and 250 mg.

(Continued on Next Page)

TABLE 1
Antiarrhythmic Classification

Class	*Mechanism*	*Examples*
I	depress upstroke of action potential	
IA	increase action potential duration	quinidine procainamide disopyramide
IB	decrease action potential duration	lidocaine mexiletine tocainide
IC	little effect on action potential duration	flecainide encainide
II	beta blockade	propranolol
III	prolong action potential duration	amiodarone
IV	blockade of slow (calcium) channels	verapamil

Side effects (chiefly of the central nervous and gastrointestinal systems) are common, similar to those seen with tocainide, and have led to drug discontinuation in about 40 per cent of patients.

Both mexiletine and tocainide shorten the QT interval and may be especially useful in treating ventricular arrhythmias associated with QT prolongation.

Flecainide

Flecainide (Tambocor) is a Class IC drug approved by the FDA in October, 1985.[4] The starting dose is 100 mg every 12 hours. This may be increased in increments of 50 mg every 12 hours at intervals of no less than four days to a maximum dose of 200 mg every 12 hours. The average daily dose is 300 mg. Dosage reductions should be considered with heart, renal or liver failure. It is supplied in 100 mg scored tablets.

The spectrum of neurologic and gastrointestinal side effects is similar to that of the drug already discussed. Although most antiarrhythmics can suppress the sinus node, impulse conduction, and ventricular function, and all can worsen ventricular arrhythmias. the incidence of these effects is greater with flecainide than with the other agents presented in this article. Flecainide causes a significant increase in the PR and QRS intervals, but this does not require dosage reduction unless prolongation is extreme. The QT interval, especially that portion (JT) following the QRS, is usually not prolonged significantly.

Encainide

Encainide (Enkaid) is another Class IC drug which will probably be released in 1986 for suppression of life-threatening ventricular arrhythmias.[5] The usual starting dose is 25 mg every eight hours (less with renal failure), and the dose may be gradually increased at intervals of no less than four days up to a maximal dose of 50 mg every six hours. Some patients may respond to twice-daily dosage. It will be supplied in tablets of 25 mg, 32.5 mg and 50 mg.

Side effects occur in about a third of patients and include dizziness, tremor, visual disturbances, and nausea. About 15 to 20 per cent of patients experience worsening of their arrhythmias. Impairment of sinus node and ventricular function are uncommon. EKG effects are similar to those of flecainide.

Amiodorone

Amiodorone (Cordarone) is a Class III antiarrhythmic which was released in December, 1985.[6] Its major use will be in treating life-threatening ventricular arrhythmias. but it has also been shown to be effective in treating supraventricular tachycardias, especially atrial fibrillation and reentrant arrhythmias involving accessory pathways (Wolff-Parkinson-White syndrome). Therapy is usually initiated with a loading dose of up to 1200 mg/day given once daily for a week, followed by a daily maintenance dose of 200 mg to 400 mg. The higher doses are usually reserved for treating the more refractory ventricular arrhythmias.

Diverse side effects of amiodarone affect virtually every organ system, and include corneal deposits, hypo- and hyperthyroidism, pulmonary fibrosis, neuropathy, myopathy, liver dysfunction, photosensitivity, and skin discoloration.

Cardiac effects include suppression of sinus node function, conduction disturbances, and possible worsening of arrhythmias and heart failure. The PR and QT intervals are prolonged.

Overview

As a group, the newer antiarrthymic drugs offer several advantages over most of the conventional antiarrhythmic agents. They tend to have somewhat greater efficacy in controlling ventricular arrhythmias, and tend to have longer half-lives, which may facilitate patient compliance. They suffer from the same drawbacks of frequent, and often serious, side effects as the conventional drugs, which should limit their use to settings where the need for therapy is strongest and the therapeutic endpoints are most clearly defined. In this regard, it should be noted that the only arrhythmic drugs shown to reduce the risk of sudden death among large groups of patients following myocardial infarction are the beta blockers, and this effect on mortality may be independent of the degree to which they suppress premature ventricular complexes (PVCs). Physicians are cautioned to evaluate carefully the risk-to-benefit ratio of treatment and the full product information before prescribing any of these medications.

Acknowledgement

We gratefully acknowledge the assistance of Kathy Moore in the preparation of this manuscript.

TABLE 2

Summary of Newer Antiarrhythmics

Drug	*Usual Maintenance Dose*	*Clinical Indications*	*Side Effects*
Tocainide	400-600 mg q 8h	serious ventricular arrhythmias	dizziness tremor ataxia, nausea neutropenia
Mexiletine	200-300 mg q8h	"	dizziness nausea
Flecainide	100-200 mg q 12h	"	dizziness
nausea bradycardia			heart failure
Encainide	25-50 mg q 8h	"	dizziness nausea arrhythmias
Encainide	200-400 mg qd	" selected atrial arrhythmias	hypothyroidism photosensitivity pulmonary fibrosis neuropathy myopathy bradycardia

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Neuroleptic Malignant Syndrome

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The neuroleptic malignant syndrome, an infrequent but potentially life-threatening reaction to major tranquilizers, consists of muscular rigidity, autonomic dysfunction, hyperpyrexia, and altered consciousness. The syndrome, known to psychiatrists, neurologists, and internists, is unknown to most other physicians. The author reports successful treatment of a postoperative case with pancuronium, and would like to familiarize all clinicians with the condition and its management.

The neuroleptic malignant syndrome, named by Delay and Deniker,[1] has been described since 1960 primarily in the French psychiatric literature. The syndrome has been associated with a variety of antipsychotic agents but haloperidol is the drug most often implicated. It has striking similarities in clinical and laboratory findings with malignant hyperthermia, an an autosomal dominant familial disorder well known to anesthesiologists.

The incidence of neuroleptic malignant syndrome is unknown. Caroff[2] believes that, particularly in this country, the NMS is unrecognized and underdiagnosed. Smego and Durack[3] have found only 37 reported cases of NMS in the English literature; and we have, since their report, observed an additional 21 related articles in the American medical journals.

As NMS is believed to be an idiosyncratic response to neuroleptics due to central dopamine receptor blockade in the hypothalamus,[4] the dopamine receptor agonist, bromocriptine mesylate,[5,6] and central dopaminergic drug, carbidopa/levodopa,[7] have been used in its treatment with remarkable success. Dantrolene sodium[8,9,10] and pancuronium bromide,[11] which act by relaxing contracted muscle, have also produced promising results.

Because the mortality rate is 15 per cent,[12] early diagnosis and treatment are crucial. Death can occur within 30 days from the onset of symptoms secondary to respiratory failure, cardiovascular collapse, thromboembolism, or myoglobinuric acute renal failure. Although the neuroleptic malignant syndrome is seen primarily in psychiatric patients, it has also been reported in patients with no known psychiatric disease.[13,14,15]

The present report details a case of severe neuroleptic malignant syndrome occurring shortly following hysterectomy. The patient developed major organ system problems with respiratory and renal failure, yet responded to treatment. The pathophysiology of the syndrome and its similarity to clinical and physiologic features of acute perianesthetic familial rhabdomyolysis, commonly known as malignant hyperthermia, is reviewed.

Case Report

K.O., an otherwise healthy 29-year-old white female, gravida 3, para 3, was admitted to United Hospital Center on May 28, 1985, for vaginal hysterectomy due to symptomatic retrodisplacement of the uterus. The medical history was notable for previous laparoscopic sterilization performed under general anesthesia without complication; the anesthetic agents used were the depolarizing neuromuscular blocking agent, succinylcholine, in conjunction with fentanyl nitrous oxide and oxygen. Retrospective history revealed that both of her parents, a sister, and an aunt had received general anesthesia for various operations without complications. Relevant laboratory data the day before hysterectomy revealed hematologic parameters, urinalysis, and blood biochemical components within normal limits.

On May 29, 1985, the patient underwent a transvaginal hysterectomy under general anesthesia which lasted approximately two hours. Diazepam 10 mg, nalbuphine hydrochloride six mg, and atropine sulfate 0.4 mg were administered as preoperative medications. After preoxygenation, anesthesia was induced with theopental sodium. Endotracheal intubation was facilitated with intravenous norcuron. Anesthesia was maintained with fentanyl, nitrous oxide and oxygen.

Patient Irritable, Restless

Intraoperative and immediate postoperative courses were uneventful; however, on the first postoperative day the patient was found to be irritable and restless. She was treated with a combination of two mg perphenazine and 10 mg amitriptyline hydrochloride twice a day. As she became progressively agitated, the aforementioned therapy was discontinued, and psychiatric consultation was sought. On the fourth postoperative day, she was placed on haloperidol tablets two mg three times per day and benztropine mesylate two mg daily. The following day she experienced increased tremors and jerking movements of all extremities. Delusions ensued and her consciousness became progressively impaired. Buccofacial and lingual dyskinesia with diffuse cogwheel muscular rigidity developed. Autonomic dysfunction, tachycardia, hypotension, and sweating followed. Fever occurred

TABLE
Biochemical Component Courses

Level (Normal Range)	*Hospital Day*									
	1	10	12	14	16	18	19	24	30	37
Calcium, mg/dL (8.5-10.5)	9.2	7.8	5.9	6.8	7.5	8.2	7.7	8.5	8.5	------
Magnesium, mEq/L (1.8-2.4)	------	------	3.2	3.1	2.0	1.7	------	------	------	------
Phosphorous, mg/dL (2.5-4.5)	4.2	4.5	8.8	6.9	4.9	3.1	2.6	3.7	3.8	------
A.P., IU/L (30-115)	69	206	313	327	213	222	235	230	200	108
Uric Acid, mg/dL (2.6-5.6)	3.4	10.7	22.4	73.2	5.6	3.1	4.1	2.9	2.2	3.0
Creatinine, mg/dL (0.7-1.4)	0.7	0.7	2.2	3.3	1.8	1.3	1.4	0.9	0.5	------
CPK, IU/L (21-215)	------	------	1308	15920	42600	2280	1344	------	------	347
BUN, mg/dL (10-26)	6	5	27	44	46	41	38	22	10	10
LDH, IU/L (100-190)	168	316	1800	2960	820	520	638	482	267	140
SGOT, IU/L (0-40)	14	153	1055	5240	440	91	232	185	89	56

concomitantly, reaching 40.4°C on the sixth postoperative day. Because of the patient's inability to swallow, all oral medications were stopped; she had received a total of eight mg haloperidol.

As the diagnosis was uncertain, supportive therapy consisting of vigorous intravenous hydration and antibiotics was begun in addition to the administration of intermittent tepid and alcohol sponge baths. As seen from laboratory data summarized in the Table, the patient had a marked elevation of alkaline phosphatase, lactic dehydrogenase, and serum glutamate oxaloacetate transaminase. Leukocytosis of 13,400 wbc/cu mm with 90 per cent polymorphonuclear cells, two per cent stabs, seven per cent lymphocytes, and one per cent monocytes was reported. Blood and urine cultures returned negative. Lumbar puncture revealed no abnormalities, and anteroposterior portable chest X-ray identified no pathology.

The patient's condition gradually improved during the next two days; she became oriented and attempted to answer questions despite dysarthria. Her temperature fluctuated between 37.6 and 38.4°C while her asynchronous jerking movements decreased to pill-rolling tremors.

Patient Transferred to ICU

She remained alert and talkative and, by the ninth postoperative day, was walking without help. A pelvic examination, albeit poorly tolerated, and a real time sonographic study of the abdomen disclosed no clue to the etiology of her fever. In the afternoon the patient complained of being tired and exhausted, and shortly thereafter she experienced increased psychomotor activity. She was given two mg haloperidol and 0.5 mg benztropine mesylate. Three hours later she became disoriented and rapidly obtunded. Generalized tonic-clonic convulsions and profuse diaphoresis ensued. By midnight she exhibited unresponsiveness and became comatose. Pulse and blood pressure were unobtainable while her rectal core body temperature registered 41.2°C. The patient was transferred to the Intensive Care Unit.

Intravenous drug therapy that included 10 mg diazepam at the rate of one mg per minute and 600 mg phenytoin were administered and, in conjunction with cooling procedures, resulted in temporary cessation of gross motor activity. An oral airway was secured. Oxygen per nasal cannula was given. Another line for intravenous fluid therapy was opened. Thirty minutes later the pulse and blood pressure were obtainable by Doppler's ultrasound at 160 beats per minute and 85/40 mm Hg respectively. Her temperature recorded by rectal probe peaked at 41.6°C, gradually decreased, and by daybreak stabilized around 38.5°C (Figure). A nasogastric tube, placed initially for stomach lavage using iced saline, was later utilized for administration of oral medications. Metabolic acidosis, judged by arterial blood gas analysis showing pH, 7.26; P_{O_2}, 85 mm Hg; P_{CO_2}, 26 mg Hg; HCO_3, 12 mEq/L, was corrected successfully with bicarbonate therapy. The WBC count was 32,000/cu mm with a marked shift to the left, and extensive laboratory workup presented in the Table demonstrated liver function abnormalities.

No neurological findings except extrapyramidal symptoms were found and, as she continued to experience recurrence of generalized asynchronic movements, diazepam two mg phenytoin 300 mg were administered intermittently every two hours as necessary to control muscle twitching and keep her sedated. Four hours after admission to ICU, myoclonic jerks lessened in intensity and shortened in duration as periods of rest grew progressively longer. The patient's medications were changed to phenytoin 200 mg b.i.d. and maintained within therapeutic range. A presumptive diagnosis of neuroleptic malignant syndrome was now made.

Rhabdomyolysis Develops

An additional complication, massive rhabdomyolysis, developed. Urine became scanty and red-brown. Plasma creatine phosphokinase level had risen from 1308 IU/L to 15,920 IU/L. The urine samples were positive for myoglobin by a radioimmunodiffusion assay, and, quantitatively, urine myoglobin level was 1.5 mg/dL. Furthermore, hemoglobinuria was striking, for the urine hemoglobin was 169.5 mg/dL. Oliguric renal failure secondary to myoglobinuria was impending. General puffiness of the

entire face and edema of the eyelids were also noted; prominent pulmonary vascular markings on anteroposterior projection of the chest indicative of vascular congestion were present. To ameliorate renal injury, furosemide was aministered, and alkalinizing of the urine was accomplished. Although a mild elevation of serum potassium was present, nonemergent therapy for hyperkalemia with 150 grams of sodium polystyrene sulfonate in 300 ml of 20 per cent Sorbitol was prescribed in three equally divided doses over a 24-hour period. Satisfactory results were achieved.

Twenty-four hours after admission to ICU, the patient's condition deteriorated; tonic-clonic movements of all extremities worsened and, in spite of cooling blankets and application of ice packs to her body, rectal temperature increased to around 39.1°C. Eye opening and semipurposeful movement to deep pain disappeared. It became imperative to control her increased tremor and jerkings to avoid hemolysis and rhabdomyolysis leading to acute renal failure. Treatment with dantrolene sodium began. Initially, 240 mg dantrolene was given intravenously over a two-hour period. She continued to receive oral dantrolene 100 mg every six hours through her nasogastric tube.

On the twelfth postoperative day, third day in the ICU, the patient's respirations became rapid and shallow with periods of apnea. She became hypotensive, bradycardiac, and developed a cardiopulmonary arrest. Successful resuscitative therapy was achieved by CCU personnel. Because of continued respiratory distress, the patient was placed on a ventilator. Intravenous access for hyperalimentation was obtained.

Four days after admission to ICU, she remained comatose. During this time, she developed increased rigidity. Urine hemoglobin and myoglobin had risen to a peak of 816.0 mg/dL and 3.5 mg/dL, respectively, while serum CPK had reached its peak of 42,600 U.L. Maximum doses of dantrolene had failed to produce expected results; therefore, it was decided to use pancuronium bromide. The patient initially was given eight mg of pancuronium intravenously and then continued to receive two mg every one to two hours as necessary to control muscle twitching. At the same time the patient was still given, though by greatly reduced dosages, phenytoin and dantrolene sodium.

Encouraging Improvement

Encouraging improvement in the patient's condition was noted by the next day when she developed semipurposeful movements. She continued to have dramatic improvement, and on day nine in ICU, because there were only mild muscle rigidity and myoclonic jerks, pancuronium therapy was discontinued. She had received a total of 48 mg of pancuronium bromide over a period of four days.

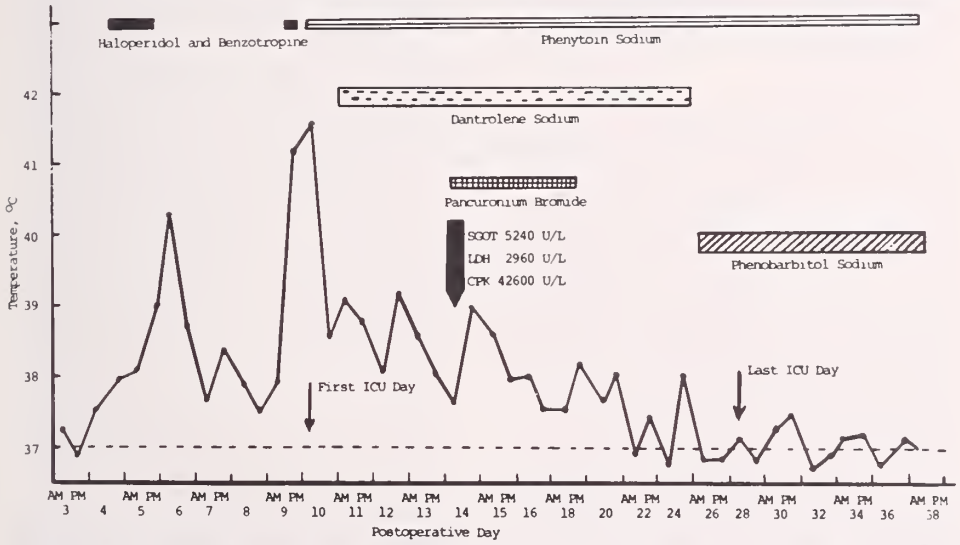

Figure. Hospital course from postoperative day three to day of discharge; effect of drug administration on temperature.

On day 10, the patient was extubated and placed on O_2 35 per cent face tent. A day later she underwent therapeutic flexible fiberoptic bronchoscopy for persistent atelectasis of the left lower lobe. Copius secretions of a tenacious nature were removed. A follow-up chest film on the twelfth day ICU showed the left lung field cleared.

By day 16 of ICU, the patient could talk and follow commands. Her temperature, electrolytes and WBC stabilized within normal limits. Plasma calcium, creatinine, and uric acid returned to a normal range. She improved clinically, and the subclavian CVP line was withdrawn. A day later the nasogastric tube was removed and oral feeding begun.

On day 19 she was discharged from ICU with a clear sensorium. She remained 10 more days in the hospital during which time she experienced no recurrence of symptoms. Neurologic and psychiatric evaluations were carried out to document her complete recovery. The CT scan of the head was normal; EEG revealed no well-defined local site of origin of seizure activity, and an echocardiogram demonstrated no significant pathology.

From the thirty-second hospital day, the patient's vital signs remained stable; she was voiding spontaneously and was ambulating with no help. All drug therapy had been discontinued with the exception of phenytoin 100 mg A.M. and HS and phenobarbital 15 mg A.M. and 30 mg HS.

The patient was discharged from the hospital on postoperative day 39, hospital day 41, without medication. One week later she was in good physical and mental health; serum CPK, SGOT, LDH, copper, and ceruloplasmin were all within normal limits. She continues to do well seven months later.

Discussion

This patient presented, during the postoperative course, all the salient features of the neuroleptic malignant syndrome as well as all of the reported major complications including coma, aspiration pneumonia, myoglobinuric renal failure, and cardiovascular collapse.

The patient had biochemical alterations characteristic of rhabdomyolysis with myoglobin in the urine, an extreme elevation of serum creatine phosphokinase, hyperuricemia, and hypocalcemia. The rhabdomyolysis could have been a consequence of hyperthermia analogous to that which occurs in heat stroke;[16] or, as some authors[17] believe, it might have been due to muscle damage secondary to intense, sustained muscle contraction.

The central hyperthermia seen postsurgically and the rigid form of anesthetic-induced malignant hyperthermia (MH) have striking clinical similarities to the neuroleptic malignant syndrome (NMS).

Although the pathophysiology of NMS is thought to be related to dopamine receptor blockade,[4,7] its pathogenesis still remains obscure. The pathophysiologic mechanism of MH is better understood. MH is believed to be a genetic defect resulting in a massive release of calcium into skeletal muscle cytoplasm under certain conditions. This release follows a generalized alteration in cellular or sub-cellular membrane permeability in the presence of certain depolarizing muscle relaxants or potent, volatile anesthetic agents.[18] The excessive myoplasmic calcium influx inhibits normal contraction-relaxation mechanism and produces the prolonged muscle contraction observed in malignant hyperthermia.[19]

In contrast to MH, which generally has a fulminant onset over a period of minutes, NMS appears to develop hours or days after drug administration or after months of drug use.[3,20] Because anesthetic agents are metabolized faster than neuroleptics,[21] recovery from NMS requires more time: five to 10 days following cessation of oral neuroleptics, 10 to 30 days after long-acting depot injections.[2,3] While MH affects males and females with equal frequency, the neuroleptic malignant syndrome has a male-to-female ratio of two to one.[7,12] Most patients with MH have serum enzyme elevation between attacks but not with NMS. Skeletal muscle from patients susceptible to MH contracts abnormally when exposed to caffeine or halothane. We had, unfortunately, no means of performing such a diagnostic test; however, the patient in the present report had a normal CPK-MB and CPK eight days after discharge from the hospital. Although there is a case report[22] and a possible pathophysiologic link between NMS and MH,[23,24] the bulk of the evidence indicates that these two syndromes are distinct entities.

The central thermoregulatory mechanisms seem to rely on dopaminergic neurons[25] and central adrenergic mechanisms.[26] Since tricyclic antidepressants impair adrenergic mechanisms in central thermoregulation,[17] and haloperidol acts in the central nervous system as an antagonist to dopaminergic neurotransmission,[27] together the two can produce disruption of central thermoregulation mechanisms. Tricyclic antidepressants and haloperidol have also been shown to inhibit each other's breakdown.[28]

By blocking calcium release from sacroplasmic reticulum, dantrolene produces peripheral muscle relaxation. It is reported to be effective in the treatment of neuroleptic malignant syndrome. In our patient, dantrolene proved ineffective.

Repeated doses or continuous infusions of a nondepolarizing muscle relaxant such as pancuronium have been reported effective in providing muscular paralysis[29] and hence in decreasing oxygen consumption.[10] The use of pancuronium in this patient was associated with reversal of muscle rigidity, elimination of fever, and the disappearance of myoglobinuria and hemoglobinuria.

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Medical Grand Rounds

West Virginia University Medical Center

Edited by Irma H. Ullrich, M. D., Professor of Medicine

Drug-Induced Hyperkalemia

Discussant:

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Drug-induced hyperkalemia is a significant and potentially fatal problem in the hospitalized population. The normal renal mechanisms controlling serum potassium can be overwhelmed by either increasing the input or blocking the renal excretory mechanism of potassium disposal. Potassium balance may also be changed by altering the normal distribution of potassium in the intra- and extracellular compartments. Drugs which affect any or all of these mechanisms can lead to hyperkalemia and its attendant cardiac arrhythmias.

The most effective treatment of this iatrogenic problem is prevention. An awareness of the "host" risk factors — the older age patient (age greater than 60 years), underlying hypoaldosteronism or renal insufficiency, and diabetes mellitus should prompt caution in prescribing drugs associated with hyperkalemia.

As physicians, in an attempt to provide good medical care, relieve pain, and prevent complications of our treatments, we sometimes create monsters. Iatrogenic illnesses are becoming more frequently recognized as our knowledge and our ability to treat various disease processes extends. Drug-induced hyperkalemia is one such monster we have created. The discussion of this problem will focus first upon the incidence of drug-induced hyperkalemia, its consequences, and then a review of potassium handling by the body and the derangements in normal physiologic mechanisms which lead to hyperkalemia. The focus will then shift to consideration of the drugs known to cause hyperkalemia and the pathophysiologic mechanisms by which the hyperkalemia develops.

Incidence

Various studies have examined the incidence of drug-induced hyperkalemia in hospitalized populations. The 1974 Boston Collaborative Study[6] evaluated 16,000 consecutive hospital admissions and identified almost 5,000 patients who were receiving potassium chloride supplementation at the time of admission. Eighty-six per cent of these patients were given potassium chloride as prophylaxis for hypokalemia. Of those who were receiving potassium chloride, nearly four per cent developed hyperkalemia at some time during their hospitalization. The definition of hyperkalemia was subjective, made by the attending physicians. It is to be assumed, therefore, that a degree of variability in potassium levels constituting hyperkalemia was inherent in this retrospective study. Of those 176 patients who developed hyperkalemia, seven deaths were attributed to the elevated potassium. Risk factors associated with the development of hyperkalemia were the patient's age and underlying renal failure; diuretic use was also identified as an independent factor but 86 per cent of these patients were receiving potassium chloride supplementation as prophylaxis, so presumably they were nearly all on diuretic therapy.

A second study to determine the incidence of drug-induced hyperkalemia was published in the British Medical Journal in 1983[7] and consisted of evaluation of 29,000 consecutive admissions to a general medical ward of one hospital. In this study, 1.4 per cent of patients developed hyperkalemia, which was defined as a serum potassium of six mEq/L or greater; 37 per cent of the episodes of hyperkalemia were attributed to drugs. Again, the elderly and underlying renal insufficiency were significant risk factors for the development of drug-induced hyperkalemia. In 1983, in an Israeli study,[11] a 10-per cent incidence of hyperkalemia (two thirds of the cases attributed to drugs) was discovered. The definition of hyperkalemia in this study was more stringent, defined as potassium > 5.3 mEq/L. Older age, underlying renal failure, and the prophylactic use of potassium chloride supplements were significant risk factors for the development of drug-induced hyperkalemia.

Probably the most common cause of drug-induced hyperkalemia is an increased potassium input, with potassium chloride supplementation being the most frequent offender.

In a study published in the Journal of the American Medical Association in 1971,[10] a somewhat different question was addressed. This particular study identified almost 6,200 drug

deaths, five of those determined to be secondary to hyperkalemia. Of those five, four were caused by potassium chloride supplementation. Although all of these studies are retrospective chart reviews, they nevertheless demonstrate that hyperkalemia is indeed a significant problem. Depending upon the definition of hyperkalemia and the patients involved, the incidence of hyperkalemia can vary from between 1.5 to 10 per cent in a hospitalized population. Given the fact, then, that hyperkalemia is a problem of significant incidence in the general hospitalized population, and knowing the development of hyperkalemia can have fatal outcome, why do these people die?

Cardiac Toxicity

The primary problem associated with hyperkalemia is cardiac arrhythmias. As the serum potassium level increases, a decrease in the resting membrane potential occurs, moving it toward the threshold potential and decreasing the automaticity of the heart. With subsequent slowing of the intraventricular and intraatrial conduction, therefore, classically, what is seen on the ECG is a peaking of the T wave which usually occurs as the serum potassium level approaches 5.5 mEq/L.

The primary problem associated with hyperkalemia is cardiac arrhythmias. As the serum potassium level increases, a decrease in the resting membrane potential occurs, moving it toward the threshold potential and decreasing the automaticity of the heart.

The underlying cardiac rhythm, the baseline cardiovascular status, and the rate at which the potassium rises can all affect the potassium level at which ECG changes occur. With continued hyperkalemia and continued intraventricular prolongation, a widening of the QRS complex is observed. As the intraatrial conduction delay progresses, a diminution in the P wave amplitude and a prolongation of the PR interval occur. As the serum potassium level approaches eight, the sine wave pattern develops, which heralds cardiac standstill.

The immediate treatment for this arrhythmia is intravenous calcium which will restore the resting membrane potential, providing temporary stabilization without affecting the underlying hyperkalemia. Thus, hyperkalemia is potentially fatal because of the cardiac arrhythmias which it can produce.

Normal Physiology

How is potassium handled by the body so that hyperkalemic states are avoided? Potassium is the primary intracellular ion with approximately 65 mEq or only two per cent of total body potassium being maintained in the extracellular fluid. The primary intracellular sources of potassium are the muscle, red blood cells, the liver, and bone. In the normal daily adult American diet, 95 to 100 mEq of potassium per day is ingested. Therefore, in order to remain in potassium balance, this amount is excreted daily, primarily by the kidneys. The gastrointestinal tract is a minor secondary route for potassium excretion, with the colon accounting for five to 10 mEq/day.

Renal Regulation

What, then, are the renal mechanisms governing potassium excretion? The kidney filters 600-700 mEq of potassium each day. The proximal tubule bulk reabsorbs in such a way that 60-70 per cent of filtered potassium is reabsorbed proximally. Twenty to 30 per cent of the remaining potassium is reabsorbed early in the distal tubule; thus, nearly 80 per cent of filtered potassium has been reabsorbed before the fluid reaches the distal tubule.

It is in the mid to late segments of the distal tubule that the fine regulation of potassium balance occurs. Potassium secretion is accomplished by the distal tubule and results in the urinary excretion of potassium. It is this specialized potassium secretory ability of the distal tubule, with a minor contribution by the collecting tubule, that allows renal regulation of potassium balance.

On a cellular level, how is potassium secreted by the distal tubule? Potassium, as in all cells, is in high concentration inside the distal tubular cell. There are two primary factors controlling the movement of potassium from the peritubular fluid (the blood) into the tubule cell and then through the luminal membrane to the urine. First, on the luminal membrane side, an electronegative charge is maintained primarily through sodium reabsorption that occurs here; distal sodium delivery is therefore a factor controlling potassium secretion. On the basolateral membrane side, the sodium potassium ATP-ase pump is responsible for moving potassium into the cell where it can be secreted into the lumen and excreted in the urine.

Tubular cell to lumen potassium concentration and tubular fluid flow rate are variables ultimately acting through Na-K-ATP-ase activity to control potassium secretion. Additional factors which control and activate the sodium potassium ATP-ase can promote potassium secretion by a direct action on the luminal membrane. In general, then, hyporenin states (due to lack of aldosterone stimulation), hypoaldosterone states with a defect at the level of the adrenal gland, and inhibition of aldosterone on the distal tubule are all effects which can block the normal secretion of potassium, thereby disturbing potassium balance via altered renal regulation.

Sodium bicarbonate, a treatment for hyperkalemia, itself probably has a direct cellular effect causing a lowering of the serum potassium but also shifts potassium into cells as a result of the pH change . . .

Extrarenal Regulation

The extrarenal regulation of potassium homeostasis involves hormones, acid-base changes, and cell integrity, all factors which can cause a shift of potassium between cellular compartments (intra- vs. extracellular), thereby altering normal potassium balance. Hormones which control potassium distribution in this manner include insulin and catecholamines. Insulin does not remove potassium

from the body but shifts potassium inside the cell where it will not alter the electrophysiologic properties of the myocardium. The precise mechanisms by which insulin causes potassium to be shifted into the cell are not known. Beta-2 catecholamines also cause a shift of potassium into the cell.

In addition to hormonally-induced potassium shifts, changes in extracellular pH may alter potassium distribution. Acute acidosis shifts potassium out of the cell, increasing extracellular potassium. A clinical pearl that has recently been established involves the nature of the acid load inducing hyperkalemia. In a patient in whom the underlying acid-base disturbance is lactic acidosis, for example, lactic acidosis and beta-hydroxybutyrate, in experimental conditions when infused into dogs, do not cause hyperkalemia. This is because organic acids don't require an intracellular exchange for the accompanying chloride as do mineral acids (hydrochloric acid or ammonium chloride, for example). Therefore, there is no intra- to extracellular exchange of hydrogen ion with lactic or beta-hydroxybutyrate and, subsequently, no balancing extracellular shift of potassium is required. Acute renal failure, an exogenous load of potassium, or a hemolytic process or bleeding should be ruled out as causes for hyperkalemia in the setting of lactic acidosis.

Sodium bicarbonate, a treatment for hyperkalemia, itself probably has a direct cellular effect causing a lowering of the serum potassium but also shifts potassium into cells as a result of the pH change; alkalemia will cause potassium to shift intracellularly. Normally, then, serum potassium is kept within a narrow range through renal regulatory mechanisms and by altering the distribution of potassium (through pH and hormones) between cellular compartments.

Mechanisms of Drug Effect

What are the factors whereby drugs can alter the normal controls and lead to hyperkalemia? There are three primary mechanisms by which this occurs: 1) Increased potassium input overwhelming the renal regulatory mechanisms; 2) Decreased renal output either by blocking the Na-K-ATP-ase or altering the lumen negative charge which prevents potassium secretion; or 3) Alteration of the extrarenal regulation by hormonal or pH changes (Table).

Increased Potassium Input

Probably the most common cause of drug-induced hyperkalemia is an increased potassium input, with potassium chloride supplementation being the most frequent offender. There is ongoing controversy regarding the need for prophylactic potassium chloride supplementation. Most would likely agree that concomitant digitalis treatment with diuretic therapy warrants potassium chloride supplementation. Individuals with known cardiac arrhythmias receiving diuretics should also receive potassium chloride supplementation assuming normal renal function is present. However, after those two categories are satisfied, the debate begins. A definitive answer awaits more controlled clinical trials.

Sugar in water will treat the hypoglycemia and avoid potentially fatal hyperkalemia which can occur with repeated cups of orange juice.

Most salt substitutes have 10-13 mEq of potassium per gram, so one must ingest substantial amounts of salt substitute alone to cause drug-induced hyperkalemia. This effect is often seen, however, in the compliant patient taking thiazides who has decreased his/her salt intake, thereby decreasing sodium delivery to the distal tubule and decreasing urine flow. Salt substitutes are used to increase palatability of food. That is a typical scenario for the development of hyperkalemia from drugs.

Potassium penicillin is an unusual cause of hyperkalemia because of the small amount of potassium involved (1.7 mEq per million units of penicillin). However, a hospitalized patient in acute renal failure with overwhelming infection receiving high-dose penicillin is a candidate for hyperkalemia from the added potassium load of the penicillin. Stored blood can be associated with drug-induced hyperkalemia depending upon the length of storage, type of blood product involved, and storage temperature. One unit of packed red cells stored over two weeks contains approximately 3.7 mEq of potassium.

TABLE*

1) Increased K+ Input
   - KC1 supplements
   - Salt substitutes
   - Potassium penicillin
   - Blood products
2) Decreased Renal K Output
   - K-sparing diuretics
   - Converting enzyme inhibitors
   - Cyclosporine
   - Heparin
   - Non-steroidal anti-inflammatory agents
3) Extrarenal alteration in K+ Distribution
   - Succinylcholine
   - Arginine monohydrochloride
   - Digitalis
   - B-blockers

*modified from Ref. 8

Orange juice contains a significant amount of potassium. An individual with underlying renal failure, for example, a dialysis patient or one nearing dialysis, is unable to dispose of an acute potassium load. A diabetic, therefore, in end-stage renal failure or nearing it, should not be given sugar in orange juice as treatment for hypoglycemia. Sugar in water will treat the hypoglycemia and avoid potentially fatal hyperkalemia which can occur with repeated cups of orange juice. If increased potassium input is not the cause of drug-induced hyperkalemia, an inability of the kidney to excrete potassium may be the deranged physiologic mechanism responsible.

Decreased Renal Potassium Output

The most commonly observed cause for this type of drug-induced hyperkalemia is the use of potassium-sparing diuretics. Other medications associated with this mechanism of drug-induced hyperkalemia are cyclosporine, converting enzyme inhibitors (Captopril or Enalapril), heparin, and non-steroidal anti-inflammatory agents.

Potassium-sparing diuretics, because of the known complications of

Musings From An Ivory Tower—Questions And Answers

DAVID Z. MORGAN, M. D.
Associate Dean, School of Medicine, West Virginia University

Recent events at the West Virginia University Medical Center have received a great deal of media attention. Construction of a new University Hospital, formation of different corporate structures, changes in the School of Medicine's faculty administration — all are complex and not easily explainable in brief news stories.

Presented in an informal question-and-answer format, this article is an effort to place the events in perspective, with the hope of a greater understanding. We have tried to answer the questions we hear most often and those likely to be most controversial. We believe this article can be the beginning of both private and public dialogue; if you have other questions, or wish to respond, let us hear from you.

Why is a new hospital being built? Wouldn't the old one be adequate with renovations?

The present University Hospital, although it will continue to be a good base for patient care until the new hospital is completed in 1988, would have needed extensive renovations to meet health and safety standards of the Joint Commission on Hospital Accreditation. The estimates for these mandated changes, exclusive of the needed renovations for patient comfort, were 40 to 60 million dollars.

We welcome contributions to *In My Opinion*. Submissions should be addressed to Stephen D. Ward, M. D., Editor, *The West Virginia Medical Journal*, Box 4106, Charleston, West Virginia 25364.

One required change was a sprinkler system throughout the building. Ceilings in the old building's hallways have a layer of asbestos — standard in buildings constructed during the 1960s. The asbestos poses no danger so long as ceilings remain intact, but renovation would require expensive and time-consuming sealing and filtering of the construction sites as well as safety precautions for workers. We were also faced with a major upgrading of the operating rooms and primary care units.

Because the time was right in a depressed construction economy and we were able to interest major firms in building a state-of-the-art hospital at bargain costs, a new hospital was clearly the appropriate decision. A major factor in the decision is an excellent cooperative arrangement with the West Virginia labor force.

But why was it necessary to split the hospital off as a private institution? Won't this detract from its role as a teaching hospital?

West Virginia has stimulated the interest of the health care community with its innovative approach to restructuring the Medical Center. The savings in comprehensive purchasing obtained through divestiture and cooperation with other hospitals have been on the order of one million dollars annually.

As a private facility, West Virginia University Hospital has been able to develop excellent centers to support our clinical and teaching program: renal dialysis, kidney transplantation, open heart surgery, bone marrow transplants, a psychiatric facility, ambulatory care units, and rehabilitation services.

Many people are not aware that although the State of West Virginia has contributed significantly to the educational program of the School of Medicine through the years, it has added very little to the financial operation of the hospital. The money earned by the hospital entered a state fund and the state, in turn, provided spending authority for patient revenues at the next budget period.

For more than a decade the pop tax — a tax on soft drinks — has been used solely to help support the Schools of Medicine, Dentistry and Nursing. The hospital has been self-sustaining for well over 10 years.

Through a state statute, a firm contractual relationship, and in the makeup of the WVUH Board of Directors, the dedication of the hospital to the education of health care profession students is well assured. The hospital will continue to be the educational base for students and will provide its resources to achieve that end.

Is it true that the clinical faculty are being required to generate more of their own salaries? Does this leave them time for their teaching responsibilities?

The clinicians do indeed contribute heavily to their own income. A glance at the Figure will tell you that 46 per cent of the School of Medicine's funds comes from earnings of the medical staff through the WVU Corporation. Another 18 per cent comes from basic science and clinical research. Thus, fully two thirds of the funding of the School of Medicine comes from faculty earnings.

The faculty nonetheless provide a superb educational experience for students. A knowledgeable medical educator who recently visited the School commented on the exceptionally high level of student/instructor

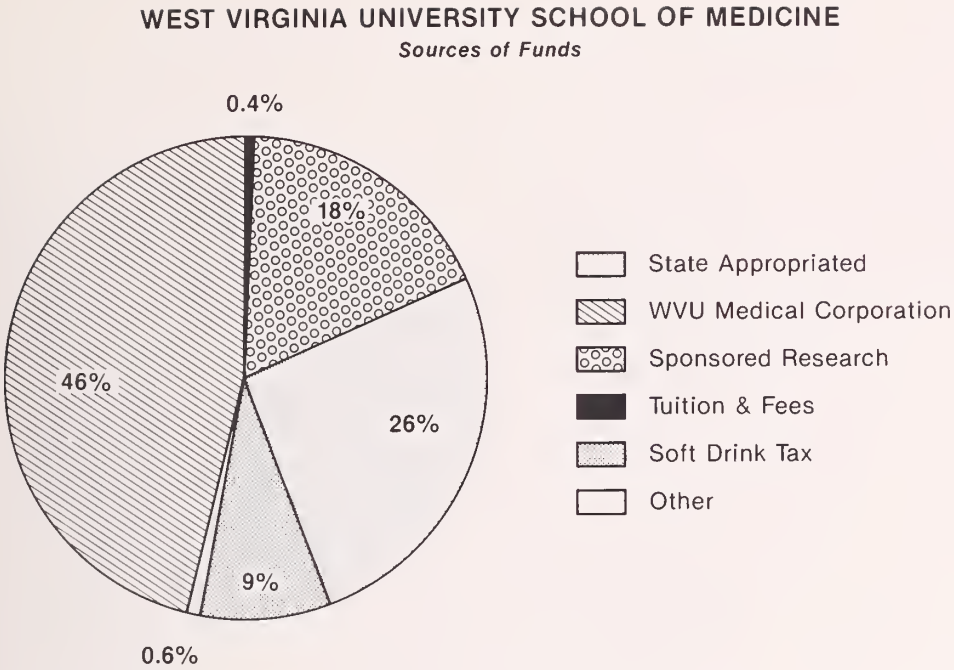

Figure 1985-86

contact in the clinical years. Program directors of hospitals all around the United States consistently rate our M. D. graduates as "good" or "excellent" when asked to compare their performances during the first postgraduate year with graduates from other institutions.

President Neil Bucklew stated in testimony prepared for the State Legislature's Joint Committee on Government and Finance recently: "I am personally very proud that these highly skilled physicians have chosen to educate our future doctors and health care professionals and donate such a large portion of this personal earning potential to the public good. The State and the students who train under these physicians are very fortunate to have their services."

The joining of the West Virginia University Hospital, Inc., with the Charleston Area Medical Center to form Healthnet was a surprise. Is this a power play?

Experts in the health care industry say that virtually all hospitals will sooner or later affiliate with one of the large corporate entities to reduce costs through shared services and competitive purchasing.

Healthnet's participation with the Voluntary Hospitals of America is an effort for two of the largest hospitals in West Virginia, each of them leaders in medical education, to come together to explore common goals, interests, and programs, and to control their integrity as West Virginia institutions.

A significant number of West Virginians are annually referred to medical centers outside of West Virginia. Unless we develop the kind of tertiary care settings in West Virginia to preclude such referrals, they are likely to continue. For too many years, West Virginia resources have been drained by corporate interests outside the state. We should not permit this draining to take place in the health care industry.

It seems to me as a young physician that the joining together of hospitals and the insurance industry with all their money will mean that I won't have any choice but to go to work for them. Healthnet seems to be a step in that direction. Do you agree?

The major impact of these mergers can't be ignored. It is our considered opinion, however, that physicians are in a good position to control their own destiny and should not be stampeded into joining an organization simply because it seems to offer a nurturing, protective environment.

The development of physician-sponsored preferred provider organizations is growing and clearly represents the desire of the profession for autonomy in patient care decisions. The practice of medicine is shifting to the outpatient arena from the hospital. Since the physician still is in control in the outpatient setting and guards the entry gates to the hospital, the authority of the physician as a decision-maker should be obvious.

The current trepidation and anxiety in the profession is partly driven by concern over the affordability and availability of professional liability insurance. But this, too, will likely be ameliorated in the future by federal legislative efforts addressed to tort law, the civil justice system, the insurance industry, and physician competence.

When the Legislature divested the University Hospital, it required the hospital to deliver $6 million of charity care annually. Is that requirement being met?

In 1985, that figure was exceeded; $7.4 million of such care was delivered.

What other construction is planned or under way on the Medical Center campus?

The Psychiatric Institute is a remarkable example of the ability of the divested West Virginia University Hospital, Inc., to enter into a favorable private venture that will assure excellent facilities to care for West Virginians and provide an outstanding training base in the behavioral sciences for students and graduate physicians. Construction for this facility has just begun and will be completed in approximately one year.

Construction planning for the School of Medicine's Mary Babb Randolph Cancer Center is under way. This will be a major research, treatment, and education center covering all aspects of the intensive investigation into the causes and cure of cancer.

Finally, a planning group has been established to evaluate our needs for an outpatient clinic. This is an important issue, and a great deal of

President's Page

Guest Author
Linda Turner (Mrs. Charles E.), President
Auxiliary to the
West Virginia State Medical Association

A Vital Link

We are team members — the Auxiliary and Medical Association — continuing a rich heritage of working together. We link our concerns and energies to protect and improve public health and to provide quality health care.

We are on the move, bolstered and enriched by the creative, energetic leadership of our Past President, Jeanny Kalaycioglu (Mrs. M. V.), and her board. They were ably assisted by the sincere, capable work of the entire WVSMA staff.

The Auxiliary is a vital link — a link from the world of medicine to the community. Today's medicine has a different posture. Change is everywhere — especially in medicine.

We are challenged by those changes — challenged to meet needs in new and meaningful ways. What are the issues? How do we confront them? What help can we expect? What programs and projects are the most effective?

These probing questions have as many answers as we have gifts, talents and skills to offer. We never arrive at a goal alone. We draw strength and purpose from each other. Each is unique; each has a responsibility to *use* that uniqueness.

Edward Everett Hale poignantly disclosed this truth when he wrote:

I am one
but I am one.

I cannot do everything
but I can do something.

What I can do, I ought to do
and what I ought to do,

By God's Grace
I will do!

Our State Auxiliary is part of a nationwide network of over 80,000 volunteers working to use that uniqueness to achieve common goals.

Together we can confront the liability issue by talking with our representatives, writing letters, sending mailgrams, visiting our Legislature, and voicing our concerns. All of this requires political action.

It has been said that if we consider ourselves to be above politics, we may be saying that democracy is beneath us. We must support WESPAC, our state political action committee, through which our legislative efforts can be channeled. Our support must be time and money.

Together we can promote health legislation and education. Our newly formed phone bank with representatives in each county provides immediate assistance to the AMA in a legislative mission aimed at alerting our physicians to issues needing immediate attention. We staff those phone banks.

Together we are organizing health fairs, raising funds for designated charities, running blood pressure clinics, Ronald McDonald houses, Hospice programs, and programs on sex education and seat belt awareness. We support medical education and research by raising funds for AMA-ERF. The list goes on and on — linking unique talents.

Together, through all of this work, we share the rewards: goals reached, quality health care assured, and friendships enriched.

We possess the sure knowledge that each is connecting, and each is using that special skill. The links are stronger. An impact is made.

We as an Auxiliary consider it a special privilege to link arms with you in the Medical Association in striving for common goals. The results of this link are powerful!

Linda

Smoking

The dichotomy which has seized the federal government in its policy of subsidizing tobacco farming while at the same time advising all who read or listen to its pronouncements against use of the weed is as apparent as its solution is obscure. If it comes down to life-effectiveness (as opposed to cost-effectiveness), data-based computer information should tell us in which way lies the most harm: (1) displacing producers and workers in the tobacco industry, or (2) perpetuating the number of patients dying from oral and lung cancer and cardiovascular disease. If this seems somewhat cynical, remember that government exists to provide the greatest good for the greatest number of its people.

Now what? Should our profession champion the total banishment of tobacco or be noncommittal on the issue of our smoking patients' trek toward disaster? Pragmatically, we are forced to conclude that this problem will be with us for the foreseeable future, so the appeal of this writer is to limit the harmful effects of tobacco to the users alone.

There is sporadic movement in attempts to ban smoking in elevators, airlines and other closed spaces inhabited by non-smokers, but the ACLU and its adherents are always ready to pounce on the well-intentioned regulators, crying infringement upon the right of smokers to exercise their freedom to smoke guaranteed by the Constitution! In the faint hope that we offended non-smokers may eventually have access to un-fouled air to breathe, we physicians might lend our influence and authority to movements to ban smoking in every medical facility except in areas with no connection, however remote, to those inhabited by non-smokers. Our own offices as well as any hospital zones where patients might conceivably find themselves should be included among the restricted areas. This would include waiting rooms and hospital departments such as radiology, laboratory and dining facilities. Non-smoking patients frequently have severe lower respiratory disease or sensitivity to tobacco smoke, and even transient exposure to smoke can be debilitating. The administrator should bite the bullet and decree *No Smoking* within the confines of hospital buildings. If there must be a smoking area, it should have no physical connection with other places so that not even a stray wisp of smoke could escape via air or heat ducts or windows or doors, except to the outdoors. Aged non-smokers and sufferers from emphysema are especially susceptible to the ill-effects of tobacco smoke, and should be completely protected from it.

One thinks especially of waiting rooms in hospitals, emergency departments and doctors' offices. While more and more doctors' offices are being declared smoke-free, patients' nostrils are being assaulted in hospital wards and semiprivate rooms, small waiting rooms and elevators. Damage to second-hand smokers has been documented thoroughly in recent years, especially in children and spouses of smokers. It is ironic that such victims might have their respiratory tracts further compromised when they go to a health institution for treatment.

Finally, and of not the least importance, there is the financial burden, cast upon all of us by way of taxes: that is, the massive expenditures of medical resources in the treatment of the catastrophic illnesses directly attributable to the use of tobacco. Of all diseases, lung cancer, obstructive pulmonary disease and cardiovascular disease resulting from tobacco use are among the most preventable.—JNJ

Good Health vs. Tobacco Wealth

Editor's Note: Many of the issues, and dilemmas, raised in the above editorial are discussed in the following guest editorial by the American Society of Internal Medicine.

Nothing should be more important to our elected leaders than the nation's good health, according to T. Reginald Harris, M. D., President of the American Society of Internal Medicine (ASIM) and a practicing internist and pulmonary disease specialist in Shelby, North Carolina — the nation's leading tobacco-producing state. So why is government so schizophrenic when it comes to tobacco issues?

"Each day in our practices, I — and internists across the country — see the devastating toll tobacco use takes on our patients. It's time we

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ask our elected leaders to be accountable for their stances on tobacco issues," he said, announcing a nationwide public awareness campaign having the theme "Good Health vs. Tobacco Wealth."

The grass-roots campaign, which involves hundreds of internists, highlights the fact that study after study very clearly shows the tremendous cost — in dollars and lives — of tobacco use. Yet the federal government remains schizophrenic on tobacco and disease. On the one hand it spends, through Medicare and Medicaid, billions of dollars each year to treat tobacco-related diseases. It also spends millions of dollars each year to study and confirm the links between tobacco use and disease. At the same time, it spends millions of dollars each year to promote the growth and use of tobacco through a complex price support system, and tries over and over to develop a "safe" cigarette. And, when the government is faced with the largest federal deficit in history, it permits the tobacco industry to deduct billions of dollars each year from its taxes for tobacco promotion and advertising.

Elected officials at all levels of government, and those up for election, are being asked to support a nine-point legislative agenda to 1) end government schizophrenia on tobacco; 2) dissuade the young from using tobacco; and 3) recognize nonsmokers' right to breathe smoke-free air. If enacted, billions of dollars and lives would be saved.

ASIM's "Good Health vs. Tobacco Wealth" initiative follows the development of a "Stop Smoking Campaign For Physicians" launched in 1985 that called upon all physicians, regardless of specialty, to 1) be role models for their patients and quit smoking (if they're among the 10 per cent who still do), 2) prohibit smoking in their offices, and 3) begin or expand patient education programs on smoking cessation. Posters, table cards, lapel pins and resource materials have been distributed to hundreds of physicians nationwide and are available for purchase from ASIM's Literature Order Department: 1101 Vermont Avenue, NW, #500, Washington, DC 20005-3457. Telephone (202) 289-1700.

A Good Day To You, Too

Hallelujah! The joy that a brief announcement of a new service can bring into the life of an editor is surely a reflection of the dismal fare ordinarily afforded this breed of suffering humanity.

CREATIVE CONCEPTS, Medical/Scientific paper writing, a new service out of Wheeling, West Virginia, offering, " - assistance in the research, preparation, and/or writing of papers for presentation or publication" is sure to brighten the day of this Editor and perhaps many others. We are already grateful. The announcement itself brightened up a good part of one morning. It doesn't take much. —SDW

Our Readers Speak

The Laser Era

Advances in technology have found their application in medicine and surgery. The persistent need of physicians to improve techniques of tissue removal and methods of diagnosis has paved the way to exploring uses of laser sources. Laser is an acronym for **l**ight **a**mplification by **s**timulated **e**mission of **r**adiation. Einstein's theory in 1917, that ordinary light energy can be harnessed to emit a more powerful thermal energy, led to the development of the laser by Schawlow and Townes in 1950.

Laser application in medicine and surgery ushered in a new dimension and sophistication in terms of precision, atraumatization, acicatrization, and palliation. Frequent laser usage unfolds newer and better laser procedures and also leads to development of more improved laser delivery to target tissues. Although the laser's potentials are limitless, it also has its limitations and complications, nor can it, solely, create a catholic surgeon.

The laser's range of use is fascinating. Arthur L. Schawlow asks "What [other] instrument can shuck a bucket of oysters, correct typing errors, fuse atoms, lay a straight line for a garden bed, repair detached retinas, and drill holes in diamonds?"

This is the laser era. During the past decade, tremendous progress has been made in laser technology, biology, and clinical methodology. Its application will undoubtedly continue to expand in most phases of medicine and surgery.

Romeo Y. Lim, M. D.
1306 Kanawha Boulevard, East
P. O. Box 3107
Charleston, WV 25331

Shirley Neitch, M. D.

Allen Kayser, Jr., M. D.

Polypharmacy, Depression In Elderly Conference Topics

"Polypharmacy in the Elderly" and "Depression in the Elderly" will be discussion topics during the 20th Mid-Winter Clinical Conference in Charleston.

Presenting the former paper will be Shirley Neitch, M. D., Assistant Professor of Medicine and Chief, Section of Geriatrics, Department of Medicine, Marshall University School of Medicine; the latter, Allen Kayser, Jr., M. D., MU Assistant Professor of Psychiatry.

Doctors Neitch and Kayser will be speaking during the Saturday afternoon, January 24, session on "Concerns in Geriatrics."

The conference will be held January 23-25 at the Marriott Hotel under the sponsorship of WVSMA, MU and West Virginia University schools of medicine, and Charleston Area Medical Center (CAMC).

Other speakers for the geriatrics session, as announced previously, will be Dr. Albert F. Heck of Charleston, who will discuss Alzheimer's disease; Dr. Maurice A. Mufson of Huntington, "Update on Immunization of the Elderly," and Dr. Joye A. Martin, also of Huntington, whose topic will be "Exercise, Nutrition and Mobility." Doctor Mufson also will be the moderator.

Doctor Heck is Professor of Neurology at WVU Charleston Division; Doctor Mufson, Professor and Chairman, Department of Medicine, and Professor of Microbiology at MU; and Doctor Martin, MU Associate Professor and Chief, Section of Geriatric Medicine, Department of Family and Community Health.

The annual CME event will open Friday, January 23, and end at noon on Sunday, with scientific sessions also scheduled Friday afternoon on "Control of Chronic Pain;" Saturday morning, "Problems of Adolescence," and Sunday morning, "Ethical Dilemmas for the 1980s and Beyond."

MCV Graduate

Doctor Neitch joined the MU faculty in 1983 after a practice in general medicine, beginning in 1980, with the National Health Service Corps Clinic in Fort Gay.

She was graduated from Virginia Commonwealth University, received her M. D. degree in 1977 from the Medical College of Virginia, and completed her internship and residency at the University of Virginia Affiliated Hospitals.

Doctor Neitch is an associate staff physician at Cabell Huntington and St. Mary's hospital in Huntington, and attending physician at the Veterans Administration Medical Center there.

Studies Depression Treatment

Doctor Kayser currently is a co-investigator in a National Institute of Mental Health-funded study of phenelzine maintenance treatment for outpatients with recurrent depression, and also is a co-investigator in a multi-center, double-blind study of the effectiveness and safety of nefazadone in depressed outpatients.

As Director of Psychiatry Clerkship for third-year students at MU, he lectures to third-year psychiatry and family practice residents, and to second-year students in psychopathology, genetics, neuroanatomy and medical pharmacology.

President Elect of the Tri-State Chapter of the Society of Neuroscience, Doctor Kayser received the MU Clinical Attending Physician of the Year Award (1983-84) and the Dean's Prize Award for academic and

clinical performance as a resident in psychiatry at CAMC in June, 1983.

He was graduated from the University of Nebraska, and received his M. D. degree in 1979 from WVU.

Physicians', Public Sessions

The Friday evening physicians' session will focus on the impaired physician and the WVSMA's Judicial Commission, which has final authority in matters pertaining to ethics, grievances and physician discipline.

"Foods for Healthy Living" will be the subject of the concurrent Friday evening public session, which will be followed by a reception. Panelists will be Ronald Cleavenger, M. D., from WVU's Family Practice Center in Morgantown; Jack Taylor, M. S., a physical therapist from CAMC, and Frances C. Wilkinson, R.D., a nutrition education coordinator from the Women, Infants and Children (WIC) Program of the West Virginia Department of Health. Doctor Cleavenger will serve as moderator.

'Healthy Living' Luncheon

A "Foods for Healthy Living" luncheon, co-sponsored by the Auxiliary, will be held at 11:30 A. M. Friday. One hundred tickets will be available for physicians and spouses to enjoy the luncheon which will feature cooking demonstrator Judi Grigoraci of Charleston. Mrs. Wilkinson will be moderator of the luncheon program.

Other speakers announced previously are Drs. Eugene A. Stead, Jr., Professor Emeritus, Florence McAlister Professor of Medicine and Chairman, Department of Medicine, Duke University; and Warren Point, Assistant Chairman, Department of Medicine, WVU Medical School; Chairman, Department of Medicine, CAMC, and Professor and Director, Department of Medicine, WVU Charleston Division.

Both doctors will be speakers for the Sunday morning session on ethical dilemmas, which will cover code issues, organ donations and the comatose patient.

The Friday afternoon session will be a discussion on the management of chronic pain, and the Saturday morning adolescence session will explore such problems as substance abuse, depression and suicide, and pregnancy.

Program Committee

Members of the Program Committee are Drs. William O. McMillan, Jr., Charleston, Chairman; Doctor Mufson; Joseph T. Skaggs, Charleston; Richard G. Starr, Beckley; John W. Traubert, Morgantown, and C. Carl Tully, South Charleston.

$87-Million WVU Hospital Passes Half-Way Point

Construction passed the half-way point and the work force reached its peak of 300 in mid-September at the site of the Ruby Memorial Hospital, now under construction by West Virginia University Hospitals, Inc.

Structural steel erection was completed in April, and the building was "under roof" by October. Installation of brick, precast and windows, which make up the exterior, is now under way, with complete enclosure expected by December 1.

While the construction workers are continuing work on the building, details of the interior are being finalized. A mock patient room has been constructed in the hospital cafeteria. It is being used by the design and construction teams to inspect the quality of the materials and equipment.

Hospital employees also are planning for the relocation of patients and equipment after the building is completed in December, 1987. Department managers currently are writing plans for the relocation of their departments, and identifying needs for equipment, furnishings, signs and telecommunications.

The new Ruby Memorial Hospital will replace the existing building occupied by University Hospitals. It will contain 376 beds. The structure will be 10 stories high and will include 470,000 gross square feet, 10 elevators, 12 operating rooms, the Jon Michael Moore Trauma Center, and Children's Hospital for children and women.

The $87-million project includes $67 million for construction, $12 million for equipment, and $8 million in project enhancements made possible by a gift from Hazel Ruby McQuain.

Construction passed the half-way point in mid-September on Ruby Memorial, the replacement hospital being built by West Virginia University Hospitals. A peak work force of 300 then was on the job, and payouts to contractors and suppliers was running $4 million per month.

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986 and 1987, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

West Virginia University

*Nov. 1, Morgantown, Cardiology Update

Nov. 5, Charleston, Adolescent Obesity

*Nov. 22, Morgantown, Magnetic Resonance Imaging

Dec. 11, Charleston, Newer Treatments for Lung Cancer

* in conjunction with WVU football games

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March 13-14, Morgantown, Oncology Update '87

April 3-4, Morgantown, Recent Advances in the Diagnosis & Management of Liver Disease

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center-Charleston Division/CAMC

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — Nov. 20, "The Things I Wish Were Different in the Malpractice Cases I've Defended," George G. Guthrie, J.D.

Dec.-Feb. (vacation)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Thursday, 8-10 A.M.—Nov. 13, "Office Evaluation & Management of Urinary Incontinence," James Lane, M. D.

Dec. 11, "Round Table of Difficult Diabetes Cases" (speaker to be announced)

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. —Nov. 5, "Seizure Disorders," A. L. Poffenbarger, M. D.

Dec. 3, "Allergy & Immunology," L. Blair Thrush, M. D.

Greenbrier, Library, Greenbrier Clinic, 3rd Tuesday, 4-5 P. M. — Nov. 18, "Ruptured Lumbar & Cervical Disc: A 30-Year View," Robert Nugent, M. D.

Dec. 16, "Noninvasive Cardiac Imaging," William Carter, M. D., & Donald Lilly, M. D.

Madison, Boone Memorial Hospital, 2nd Tuesday, 7-9 P. M. — Nov. 11, "Acute Medical Emergencies & Transport," John Walker, R.N., & Nancy Crittenden, R.N.

Dec. 9, "Early Warning in the Diagnosis of AIDS," Patrick Robinson, M. D.

Oak Hill, Plateau Vocational Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — Nov. 25, "Immunotherapy," Robert Spain, M. D.

Summersville, Summersville Memorial Hospital, 1st Tuesday, 6:30-8:30 P. M. — Nov. 4, "Pulmonary Function Testing," Bippin Avashia, M. D.

Dec. 2, "Update on Treatment of Common Cancers," David Lee, M. D.

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — Nov. 19, "Update Hematological Malignancies," Robert Spain, M. D.

Dec. 17 (vacation)

Whitesville, Raleigh-Boone Medical Center, 4th Wednesday, 11 A. M.-1 P. M. — Nov. 26 (vacation)

Dec. 24 (vacation)

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — Nov. 6, "The Primary Care Provider & the Diagnosis of AIDS," Patrick Robinson, M. D.

Dec. 4 (vacation)

November Conferences Scheduled In Clarksburg

Following are one-hour CME conferences for November scheduled at United Hospital Center in Clarksburg through the Family Practice Residency:

Nov. 3, "Diverticulosis;" Nov. 5, "Carcinoids;" Nov. 11, "Moral Decisions of Contraception and Birth;" Nov. 19, "Pleural Effusions;" and Nov. 24, "Role of Balloon Angioplasty in Coronary Artery Disease."

For additional information, call (304) 624-7589.

Correction

Dr. Cordell A. De La Pena, WVSMA President Elect, is not Chief of Staff and Chief of Laboratory Services at Clarksburg Veterans Administration Medical Center, as stated on Page 386 in the October issue of *The Journal.*

Erlinda L. De La Pena, M. D., Doctor De La Pena's wife, is Chief of Staff and former Chief of Laboratory Services at the VA hospital. The information about her was included in Doctor Cordell's curriculum vitae and inadvertently was used in the October *Journal* story.

The Journal regrets this error.

Turners Make Leadership A 'Family Affair'

Editor's Note: Reprinted with permission from American Medical News, September 12, 1986.

Charles Turner, M. D., and his wife, Linda, have made leadership for West Virginia's medical community a "family affair." Doctor Turner was installed as President of the West Virginia State Medical Association in August, at the same time Mrs. Turner was elected President of the Association's Auxiliary.

The Turners are both excited over the prospect of using their personal relationship to bring the goals and programs of their respective groups closer together. "This is a real opportunity to energize each society to deal with problems (facing physicians) and effectively complement each other," said Doctor Turner, a gastroenterologist with the Huntington Internal [Medicine] Group, Huntington, West Virginia. He cited liability insurance, economic recovery, and education as three major problems the medical community, especially in his own state, now faces.

The issue that the Turners most look forward to working on together is education. "We feel there needs to be some impetus from the medical community . . . on health issues, teachers' salaries, and sex education," Doctor Turner said.

Mrs. Turner, formerly a communications teacher in junior high and high school, has long been active in promoting a strong sex education program for the state. The Legislature previously had forbidden a fifth and sixth grade sex education program in the schools, "but now the state has said, 'Yes, you may teach about human reproduction,'" she said. The program is set to begin in 1987, but as yet, teachers have not received a text. Mrs. Turner is now holding workshops with teachers on how to present sex education material to the students.

The Turners believe that organized medicine needs to step out of its "narrow role" and speak out about social issues. Doctor Turner said that physicians are beginning to realize that the one-on-one type of relationship, which physicians have been trained to use in dealing with patients, will not work in promoting the group goals of physicians. They believe that physicians must band together to obtain their goals. For this reason, he said, in the future organized medicine will become more powerful on social-political issues.

This new organization of physicians is one goal that Mrs. Turner feels the Auxiliary will be able to help with. "The Auxiliary has the wonderful opportunity to be a liaison between physicians and the community," she said. "None of us can do it alone."

Doctor Turner concurs. "The fact that we are doing this together means we are using our best assets — our spouses."

Doctor Turner is 49 years old, and a member of the American Medical Association, the American College of Physicians, and the American College of Gastroenterologists. Mrs. Turner is 47, and has been active in the Auxiliary and in community volunteer groups since the Turners moved to Huntington in 1969.

The Turners will be traveling and speaking to different societies and groups across West Virginia. They said they enjoy traveling with each other, and Mrs. Turner said, "I would have gone with him anyway, but now they'll let me speak!"

—John Everson

Eye Care Helpline Marks 100,000th Call

The toll-free Helpline that provides medical eye care for older Americans — 1-800-222-EYES — has received more than 100,000 calls from across the U. S. since it opened January 6.

Emerson H. Hillyard, 66, of Ulysses, Pennsylvania, was the 100,000th person to call the National Eye Care Project, a public service program cosponsored by the Foundation of the American Academy of Ophthalmology and the West Virginia Academy of Ophthalmology.

Mr. Hillyard has been referred to a nearby volunteer ophthalmologist, who will provide a medical eye exam and treatment of any existing eye condition at no out-of-pocket cost to him.

"Through this outreach effort," said Harry L. Amsbary, M. D., President of the West Virginia Academy of Ophthalmology, "we are providing medical eye care for older people whose sight is threatened by diseases like macular degeneration, cataracts and diabetic retinopathy. We want to let people know that deteriorating eyesight in their later years can be prevented."

The National Eye Care Project provides medical eye care to U. S. citizens and legal residents age 65 and over who are not currently under the care of an ophthalmologist, who have no access to one, or who have not seen one in the past three years.

A total of 1,050 West Virginia residents have called the service, and 696 have been referred to volunteer ophthalmologists near their homes. The matching of patients to physicians is done by a computer, which then generates a letter informing the patient to call the physician for an appointment.

Of the 100,000 callers, 66,200 have been referred to physicians for medical eye care. More than 16,000 have already been treated for sight-threatening eye diseases. Thirty-four per cent of these patients had *never* had an eye exam until they called the Helpline.

Poetry Corner

Gentle Breeze

When the torrid temperature climbs
And your torso burning with heat,
A gentle breeze is welcome.

Time exposure is the culprit
From the sun rays
In giving a gentle breeze is welcome.

This has no relation to
"torrid" love story;
Let's pray for a gentle breeze.

When you find yourself
In such a predicament,
Seek shade or pray for a gentle breeze.

If the weather is cool,
Ignore shade
Or even a gentle breeze.

Try to balance your exposure
With the sun rays;
That's easy with a gentle breeze.

However, these exceptions:
1) Cover torso with clothes
And 2) stay out of the sun rays.

That about covers this subject
Except if it so happens you can't avoid,
Pray for a gentle breeze.

—John H. Robinson, M. D.
South Charleston

Hear Ye, Second Call For Readers' Poetry

The Journal repeats its request in the October issue for poetry from our readers.

The Publication Committee believes that poetry by West Virginia doctors will add "sparkle" and interest to *The Journal.*

Light and humorous — "heavy" or serious — medically related or non-medical — all types of poems are welcome. Perhaps you would like to base a poem on current medical, political or social issues. The world is at your fringertips!

Writers submitting poetry which is accepted for publication will be so notified, and will be given credit at the time of printing.

We're pleased to publish the accompanying poem, the first to be received since "Poetry Corner" was initiated.

Patients Get Treatment By CAMC's 'Stone Crusher'

Five patients at the Charleston Area Medical Center in September became the first West Virginians to have their kidney stones disintegrated by shock waves instead of removed by surgery.

The three women and two men became the first of what CAMC expects to be a large number of patients to undergo kidney stone pulverizing treatment by the state's only lithotripter. The lithotripter was installed in September. Urologists and other medical professionals have undergone training in use of the $2 million West German device. Dr. Thomas McCoy is Medical Director of Lithotripsy.

"The lithotripter treatment takes about one hour," said Doctor McCoy. "These patients can expect a two to three-day hospital stay at most, and usually return to work within five days of the procedure. Considering these factors, lithotripsy is the treatment of choice. It is more efficient. It results in a lower cost to the patient. And, of course, it leaves no scars."

CAMC's High Tech Center, located at the General Division, houses the lithotripter. West Virginia is identified with other southern states as having a prevalence of reported kidney stone cases, according to CAMC.

MRI Course By WVU Radiology November 22

A half-day CME course on "Magnetic Resonance Imaging: Applications in Clinical Practice" will be held Saturday, November 22, at West Virginia University School of Medicine in Morgantown.

The 7 A. M. - 11:45 A. M. program is sponsored by the WVU Department of Radiology and the WVU CME Office.

The faculty will be Drs. Peter L. Davis, Pittsburgh NMR Institute, Pittsburgh; Orlando F. Gabriele, Professor and Chairman, WVU Department of Radiology, and William E. Rothus, Department of Diagnostic Radiology, Allegheny General Hospital, Pittsburgh.

The program will include tours of the WVU Magnetic Imaging Center, a talk on "MRI in Radiology Today," and presentations on MRI in CNS, musculoskeletal system, spine, and the abdomen and pelvis.

For registration and other information, call the CME office at (304) 293-3937.

Attending the WVSMA's Dermatology Section meeting during the Association's Annual Meeting in August at White Sulphur Springs were, from left, Drs. Joseph C. Woofter, Parkersburg; Donald E. Farmer, Charleston; John J. Mahood, Bluefield; L. Walter Fix, Martinsburg; William A. Welton, Morgantown; Gary Ganzer and Ralph Massulo, Doctor Welton's dermatology residents at West Virginia University Medical Center, and William A. Welton, Jr., first-year student at Marshall University Medical School.
— Photo by William D. McLean, M. D.

Dr. William D. Rose, a Gassaway native, has been named Medical Director of HealthNet Aeromedical Services Northern Base at West Virginia University Hospitals. Doctor Rose, right, checks medical equipment and supplies on the HealthNet helicopter with a flight crew paramedic.

Emergency Doc One Of New Breed

The new Medical Director of HealthNet Aeromedical Services Northern Base at West Virginia University Hospitals has been a flight physician on more than 100 emergency medical helicopter missions and is a strong supporter of emergency air transport.

Dr. William D. Rose, a Gassaway native, recently joined University Hospitals as Medical Director of the helicopter service. His experience and research into the rapidly growing field of emergency aeromedical transport tailored him for the job.

"He is one of the new breed of residency-trained emergency physicians," said Dr. Stephen Rector, Medical Director of University Hospitals Emergency Department. Doctor Rector said there are only a few three-year emergency medical residency programs such as the one that Doctor Rose completed, and doctors with experience are valuable assets to the emergency medical field.

Doctor Rose is particularly concerned with transporting critically ill or injured persons in rural environments, and believes air transport can solve that problem.

"The National Academy of Sciences did a study that showed 70 per cent of fatal accidents occur in rural regions of the United States," said Doctor Rose. "That's a significant number — implying that we need to transport critically ill people to definitive care more quickly through the use of a helicopter system staffed by personnel trained in emergency critical care and transport. HealthNet Aeromedical is providing that service in West Virginia."

Doctor Rose noted that HealthNet Aeromedical Service Northern Base already is a success.

"It's an excellent program," Doctor Rose said. "Predictions for mission requests were 30 per month. We had 90 requests in the first 30 days. The program is so busy we are hiring another pilot." Critically ill cardiac patients, patients in shock, trauma victims, high-risk obstetric patients, neonatal patients and accident victims are most often transported by HealthNet Aeromedical Services, he said.

Dr. Rose obtained his medical degree from WVU. He also has a bachelor of science degree in electrical engineering from West Virginia Institute of Technology and a master's degree in electrical enginering from WVU.

Medical Meetings

Nov. 2-7—Am. Assoc. of Blood Banks, San Francisco.

Nov. 2-7—Am. Society of Therapeutic Radiology & Oncology, Los Angeles.

Nov. 5-7—Am. Cancer Society, New York City.

Nov. 8—WVSMA Loss Control Seminar, Huntington.

Nov. 8-11—Southern Medical Assoc., Atlanta.

Nov. 9-13—Am. Academy of Ophthalmology, New Orleans.

Nov. 12-16—Am. Medical Women's Assoc., St. Louis.

Nov. 15-18—Am. Assoc. for Clinical Immunology & Allergy, Ft. Lauderdale, Fla.

Nov. 16-19—Am. Geriatrics Society, Chicago.

Dec. 6-7—Am. Society of Hematology, San Francisco.

Dec. 6-7—National Kidney Foundation, Washington, DC.

Dec. 7-10—Interim Meeting, AMA House of Delegates, Las Vegas.

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Jan. 15-17—Neurosurgical Society of the Virginias, Hot Springs, Va.

Jan. 22—Finance Committee, WVAAFP, Charleston.

Jan. 22-27—Am. Academy of Orthopaedic Surgeons, San Francisco.
Association, Los Angeles.

Jan. 23—Board Meeting, Family Medicine Foundation of WV, Charleston.

Jan. 23—Board Meeting, WVAAFP, Charleston.

Jan. 23-25—20th Mid-Winter Clinical Conference, Charleston.

April 26-29—WV Academy of Ophthalmology 40th Annual National Spring Meeting, White Sulphur Springs.

Aug. 8-12—120th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

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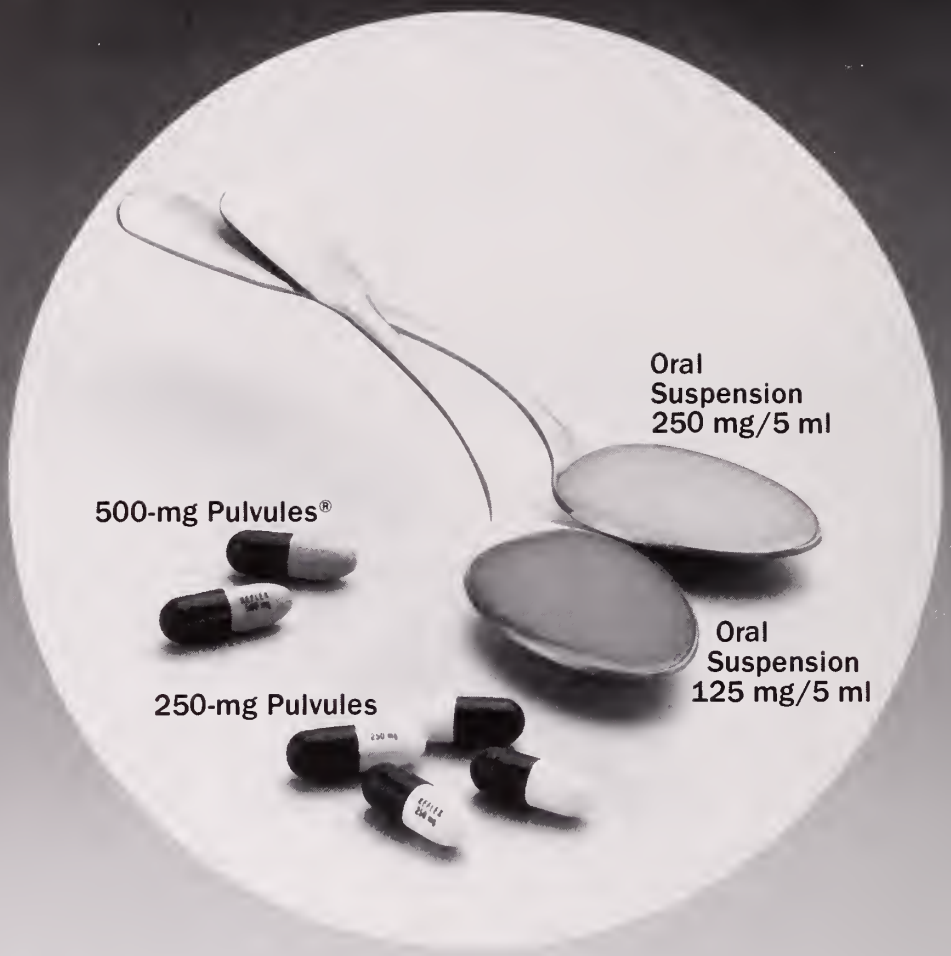

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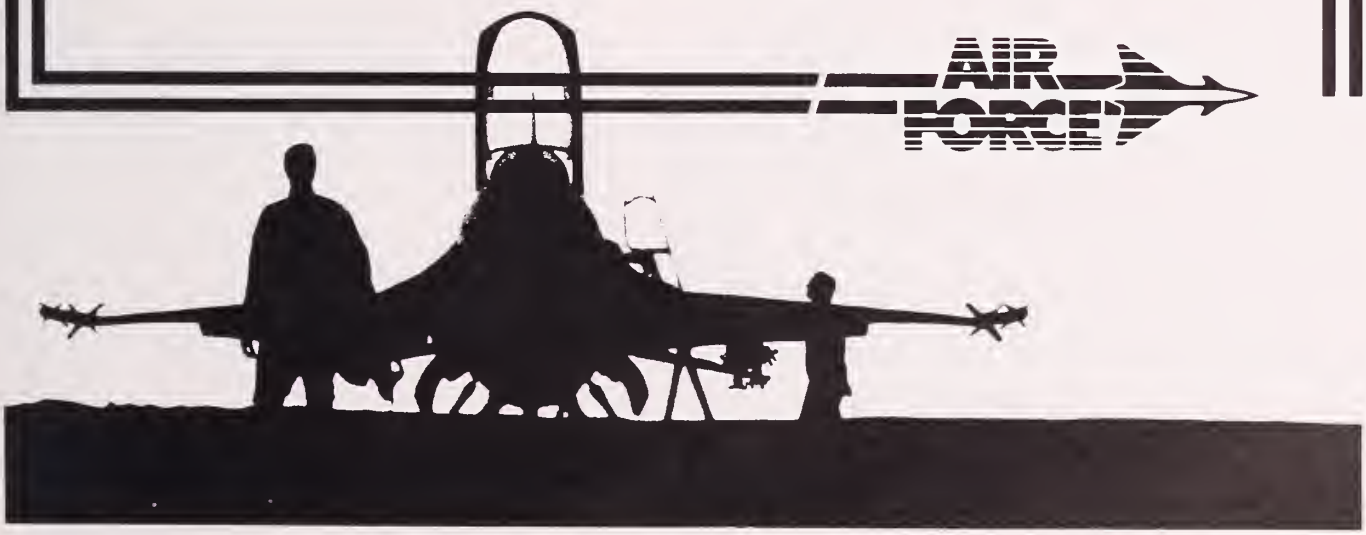

WVU Medical Center News

West Virginia University

68 Medical School Promotions

Of the 177 most recent faculty promotions or tenure grants at West Virginia University, 68 are in the School of Medicine.

Approved by the West Virginia Board of Regents, the status changes were announced by Frank A. Franz, WVU Provost and Vice President for Academic Affairs, and John E. Jones, WVU Vice President for Health Sciences.

Those promoted, granted tenure, or both, in the School of Medicine included:

Ali F. AbuRahma, Clinical Professor, surgery; Dasari Alfred, Clinical Assistant Professor, surgery; Constantino Amores, Clinical Associate Professor, neurosurgery; Keith Aplegren, Associate Professor, surgery; Terry A. Athari, Clinical Associate Professor, obstetrics and gynecology; Prakash C. Bangani, Clinical Associate Professor, orthopedic surgery; Bruce L. Berry, Clinical Associate Professor, obstetrics and gynecology; Nancy L. Brallier, Clinical Associate Professor, behavioral medicine and psychiatry; Barbara Burkart, Clinical Assistant Professor, neurology/physical therapy;

David B. Burr, professor, anatomy/orthopedics; Robert Castellan, Clinical Adjunct Associate Professor, medicine; Tong Chang, Clinical Associate Professor, surgery; Elliott Chideckel, Professor, medicine, with tenure; John M. Connors, Research Associate Professor, physiology; John L. Crites, Clinical Professor, obstetrics and gynecology; Bharati S. Desai, Adjunct Associate Professor, behavioral medicine and psychiatry; John P. Durham, Professor, biochemistry, granted tenure; Jeffrey S. Fedan, Clinical Adjunct Professor, pharmacology and toxicology/ALOSH; Arlene Feder, Associate Professor, medicine;

Edmundo E. Figueroa, Clinical Associate Professor, surgery; Joseph A. Fontana, Professor, medicine, with tenure; Leland J. Foshag, Associate Professor, surgery; Daniel Foster, Clinical Associate Professor, surgery; James L. Frost, Professor, pathology; Paul H. Fulcher, Clinical Assistant Professor, obstetrics and gynecology; Hubert R. Galford, Clinical Associate Professor, neurology/physical therapy; Barbara K. Garland, Assistant Professor, community medicine; Robert Ghiz, Clinical Professor, orthopedic surgery; John L. Hankinson, Clinical Adjunct Associate Professor, physiology; MaryBeth Harris, Associate Professor, neurology/physical therapy, with tenure; Sherman E. Hatfield, Clinical Professor, otolaryngology;

Richard C. Haydon III, Adjunct Associate Professor, otolaryngology; Richard J. Head, Professor, pharmacology and toxicology; Thomas Hogan, Associate Professor, medicine; Jean D. Holter, Professor, pathology/medical technology; Pushpa Rani Jain, Associate Professor, radiology, granted tenure; Ronald S. Jones, Clinical Assistant Professor, obstetrics and gynecology; James W. Kessel, Clinical Associate Professor, surgery; Carl J. Kite, Clinical Associate Professor, surgery; Richard Kleinmann, Associate Professor, medicine, granted tenure; Chandra M. Kumar, Clinical Associate Professor, pediatrics; David A. Labosky, Associate Professor, orthopedic surgery, granted tenure;

Robert C. Lantz, Associate Professor, anatomy, with tenure; John V. Linberg, Associate Professor, ophthalmology, granted tenure; John H. Mahan, Clinical Associate Professor, surgery; Michael R. Miller, Professor, biochemistry; Anthony Morise, Associate Professor, medicine, granted tenure; Alvin H. Moss, Associate Professor, medicine; Stephen P. Murphy, Clinical Assistant Professor, neurology/physical therapy; Jan E. Palmer, Adjunct Associate Professor, family practice; Jeffrey A. Powelson, Clinical Assistant Professor, neurology/physical therapy; Jack Pushkin, Clinical Professor, orthopedic surgery;

Robert J. Reed, Clinical Associate Professor, surgery; Jack E. Riggs, Associate Professor, neurology, grant-tenure; Patrick Robinson, Associate Professor, medicine, granted tenure; Ujjal Singh Sandhu, Clinical Associate Professor, obstetrics and gynecology; Ronald A. Savrin, Professor, surgery; Ivan R. Schwab, Associate Professor, ophthalmology, granted tenure; Harold Shackleford, Clinical Associate Professor, surgery; John B. Spadafore, Clinical Assistant Professer, neurology/physical therapy;

John C. Spiker, Clinical Assistant Professor, neurology/physical therapy; John Surmonte, Clinical Professor, surgery; Ellen Szego, Clinical Associate Professor, pediatrics; Luis Teba, Associate Professor, anesthesiology, with tenure; Ganpat Thakker, Clinical Associate Professor, medicine; Velayudhan N. Vallyathan, Clinical Adjunct Professor, pathology; Angel M. Vazquez, Professor, family practice, granted tenure; Edward Voss, Clinical Professor, surgery.

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Obituaries

JAMES H. GRAY, M. D.

Dr. James H. Gray of Cross Lanes (Kanawha County), a family physician, died October 7 in a South Charleston hospital. He was 83.

Doctor Gray, a World War II Air Force veteran, formerly practiced in Clendenin, Ward and Belle.

Born in Clarksburg, he was a graduate of West Virginia University, and received his M. D. degree in 1933 from Emory School of Medicine.

Doctor Gray was a member of the West Virginia Chapter, American Academy of Family Physicians, and was an honorary member of the Kanawha Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include the wife, Mrs. Dolly Carter Gray; a daughter, Diane Leonard of Atlanta, and two stepsons, David and Jonathan Robertson, both of Charleston.

GLEN G. HUNTER, M. D.

Dr. Glen G. Hunter of Huntington died August 28. He was 52.

Doctor Hunter, whose residence was in Chesapeake, Ohio, was a clinical pathologist with Pathology Service Group, Inc. at Cabell Huntington Hospital.

He was in general practice in Chesapeake from 1962 to 1969, and was a Past President of the Lawrence County Medical Society in Ohio.

Doctor Hunter was born in Huntington, graduated from Bowman Gray School of Medicine, Wake Forest University, and interned at Miami Valley Hospital in Dayton, Ohio. He took his residency in pathology in 1969-73 at Cabell Huntington Hospital.

Doctor Hunter was a member of the Cabell County Medical Society, West Virginia State Medical Association and American Medical Association.

Survivors include the wife, Mrs. Edna Belle Hunter; three daughters, Mrs. Sandra K. Jenkins, Huntington; Mrs. Debra S. Rucker, Chesapeake, and Lisa D. Hunter, at home; one son, James E. Hunter, Charlotte, North Carolina; one sister, Joyce Ann Taylor, Huntington, and two brothers, Elva C. Hunter, Jr., of Fort Wayne, Indiana, and Bernard L. Moore of Huntington.

RAY D. LATTIMER, M. D.

Dr. Ray D. Lattimer, retired Parkersburg pediatrician, died September 20 in a hospital there. He was 90.

Born in Reedy (Roane County), Doctor Lattimer practiced in Parkersburg for 50 years.

He was a former staff member of Camden-Clark Memorial and St. Joseph's hospitals in Parkersburg.

Doctor Lattimer was graduated from George Washington University, and received his M. D. degree in 1927 from the University of Louisville. He interned at City Hospital in Buffalo, and took his residency at Childrens Hospital in Cincinnati.

Doctor Lattimer was an honorary member of the Parkersburg Academy of Medicine, West Virginia State Medical Association and American Medical Association.

He was a World War I Army veteran.

Surviving is one daughter, Patricia Learman of Saginaw, Michigan, and one sister, Doris Dye of Parkersburg.

STATEMENT REQUIRED BY THE ACT OF OCTOBER 23, 1962; SECTION 4369, TITLE 39, UNITED STATES CODE SHOWING THE OWNERSHIP, MANAGEMENT AND CIRCULATION OF THE WEST VIRGINIA MEDICAL JOURNAL.

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I certify that the statements made by me above are correct and complete.

(Signed) Custer B. Holliday,
Managing Editor

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County Societies

CABELL

Dr. Peter Dans, Director of Medical Practice Evaluation at Johns Hopkins Medical School, was guest speaker for the meeting of the Cabell County Medical Society September 11.

Doctor Dans, a graduate of Columbia University School of Medicine, traced the milestones in the evolution of medical practice and the public's concept of the physician.

The Society approved a dues increase of $50 for next year.

The book, History of Cabell County Medical Society, was to be available in October.

Dr. Maurice A. Mufson, President, announced that a list of questions for political candidates, suggested by the membership, had been drawn up and will be mailed. He asked members to consider resolutions which could be submitted at the 1987 WVSMA Annual Meeting. — Mabel M. Stevenson, M. D., Secretary.

McDOWELL

The McDowell County Medical Society met September 10 at Stevens Clinic Hospital in Welch.

Items of discussion included: upcoming guest speakers, county society dues, consideration of contribution to assist the county health department in the purchase of the H. flu vaccine for indigent children, the proposed overall 23-per cent increase by CNA in malpractice insurance premiums in 1987, and individual contributions to the McDowell County Chapter of the American Red Cross. — Barbara A. Fenton, M. D., Secretary.

MINGO

The Mingo County Medical Society met September 10 at Williamson Memorial Hospital.

Results of the WVSMA Annual Meeting in August were reported and discussed by Dr. Diane E. Shafer, President of the Society and a Delegate to the convention, and Pastor C. Gomez, also a Delegate.

Doctor Shafer stressed the importance of supporting organized medicine at the local, state and national levels.

Legal counsel for the Society is being contemplated.

Dr. Manolo Tampoya discussed the problem of Medicaid patients receiving adequate prenatal care and delivery. — Manolo Tampoya, M. D., Secretary/Treasurer.

WESTERN

Dr. Richard Kleinmann of Charleston was the guest speaker for the meeting of the Western Medical Society September 9 at Jackson General Hospital in Ripley.

Doctor Kleinmann presented a very comprehensive review of thyroid nodules, new procedures to evaluate this type of nodule, and treatment of carcinoma of the thyroid gland.

Plans were made for the October and November meetings. — Ali H. Morad, M. D., Secretary.

New Members

The following physicians were welcomed in July as new members of the West Virginia State Medical Association:

Cabell:

William P. Bristol, M. D., 1801 6th Avenue, Huntington 25701, pediatrics/emergency room

Andrew J. Burger, M. D., Marshall University Medical School, 1801 6th Avenue, Huntington 25701, cardiovascular diseases

Allen Kayser, M. D., 604 Ridgewood Road, Huntington 25701, psychiatry

Sarah A. McCarty, M. D., Marshall University Medical School, 1801 6th Avenue, Huntington 25701, internal medicine

Manjula Narayan, M. D., 1016 6th Avenue, Huntington 25701, physical medicine & rehabilitation

Hancock:

Joseph Endrich, M. D., 2416 Pennsylvania Avenue, Weirton 26062, internal medicine

Kanawha:

Jill Bross, M. D., 2647 Hilltop Drive, St. Albans 25177, pediatrics/emergency medicine

Monongalia:

Robert A. Ringel, M. D., WVU Medical Center, Morgantown 26506, neurology

Allyn Patrick Rose, M. D., WVU Medical Center, Morgantown 26506, pediatrics

Gary Edward Rozar, M. D., WVU Medical Center, Morgantown 26506, internal medicine

Carol A. Slomski, M. D., WVU Medical Center, Morgantown 26506, surgery

Ohio:

Maxine L. Baron, M. D., The Wheeling Clinic, 58 16th Street, Wheeling 26003, dermatology

Thomas V. Burke, M. D., The Wheeling Clinic, 58 16th Street, Wheeling 26003, internal medicine

Robert L. Cross, M. D., 116 Walnut Avenue, St. Clairsville, OH 43950, general surgery

Michael Stevens, M. D., The Wheeling Clinic, 58 16th Street, Wheeling 26003, rheumatology

Medical Students:

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Karl J. Myers, Jr., M. D.
Wm. A. SanPablo, M. D.
Gregg J. Fromell, M. D.

Pediatrics:
E. G. Kreider, M. D.
Beth E. Rezet, M. D.

Family Practice:
Charles L. Arnett, M. D.
James A. Arnett, M. D.

JAMES T. SPENCER, JR., M.D.
ROGER P. NICHOLS, M.D.
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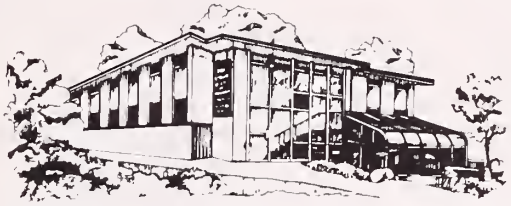

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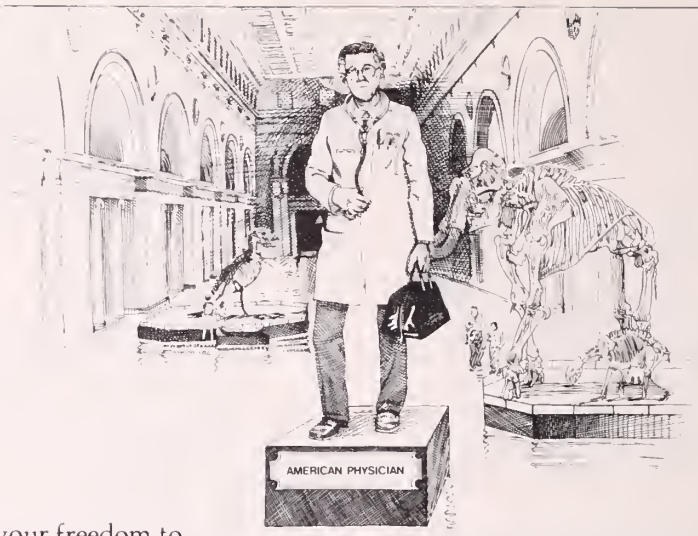

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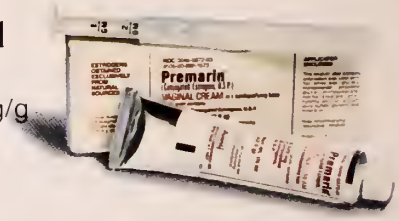

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1. ESTROGENS HAVE BEEN REPORTED TO INCREASE THE RISK OF ENDOMETRIAL CARCINOMA.

Three independent case control studies have reported an increased risk of endometrial cancer in postmenopausal women exposed to exogenous estrogens for more than one year. This risk was independent of the other known risk factors for endometrial cancer. These studies are further supported by the finding that incidence rates of endometrial cancer have increased sharply since 1969 in eight different areas of the United States with population-based cancer reporting systems, an increase which may be related to the rapidly expanding use of estrogens during the last decade. The three case control studies reported that the risk of endometrial cancer in estrogen users was about 4.5 to 13.9 times greater than in nonusers. The risk appears to depend on both duration of treatment and on estrogen dose. In view of these findings, when estrogens are used for the treatment of menopausal symptoms, the lowest dose that will control symptoms should be utilized and medication should be discontinued as soon as possible. When prolonged treatment is medically indicated, the patient should be reassessed on at least a semiannual basis to determine the need for continued therapy. Although the evidence must be considered preliminary, one study suggests that cyclic administration of low doses of estrogen may carry less risk than continuous administration; it therefore appears prudent to utilize such a regimen. Close clinical surveillance of all women taking estrogens is important. In all cases of undiagnosed persistent or recurring abnormal vaginal bleeding, adequate diagnostic measures should be undertaken to rule out malignancy. There is no evidence at present that "natural" estrogens are more or less hazardous than "synthetic" estrogens at equiestrogenic doses.

2. ESTROGENS SHOULD NOT BE USED DURING PREGNANCY.

The use of female sex hormones, both estrogens and progestogens, during early pregnancy may seriously damage the offspring. It has been shown that females exposed in utero to diethylstilbestrol, a non-steroidal estrogen, have an increased risk of developing in later life a form of vaginal or cervical cancer that is ordinarily extremely rare. This risk has been estimated as not greater than 4 per 1,000 exposures. Furthermore, a high percentage of such exposed women (from 30% to 90%) have been found to have vaginal adenosis, epithelial changes of the vagina and cervix. Although these changes are histologically benign, it is not known whether they are precursors of malignancy. Although similar data are not available with the use of other estrogens, it cannot be presumed they would not induce similar changes. Several reports suggest an association between intrauterine exposure to female sex hormones and congenital anomalies, including congenital heart defects and limb reduction defects. One case control study estimated a 4.7-fold increased risk of limb reduction defects in infants exposed in utero to sex hormones (oral contraceptives, hormone withdrawal tests for pregnancy, or attempted treatment for threatened abortion). Some of these exposures were very short and involved only a few days of treatment. The data suggest that the risk of limb reduction defects in exposed fetuses is somewhat less than 1 per 1,000. In the past, female sex hormones have been used during pregnancy in an attempt to treat threatened or habitual abortion. There is considerable evidence that estrogens are ineffective for these indications, and there is no evidence from well controlled studies that progestogens are effective for these uses. If PREMARIN is used during pregnancy, or if the patient becomes pregnant while taking this drug, she should be apprised of the potential risks to the fetus, and the advisability of pregnancy continuation.

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INDICATIONS AND USAGE: PREMARIN (conjugated estrogens tablets, USP): Moderate-to-severe *vasomotor* symptoms associated with the menopause. (There is no evidence that estrogens are effective for nervous symptoms or depression without associated vasomotor symptoms and they should not be used to treat such conditions.) **Osteoporosis (abnormally low bone mass).** Atrophic vaginitis. Kraurosis vulvae. Female castration.

PREMARIN (conjugated estrogens) Vaginal Cream is indicated in the treatment of atrophic vaginitis and kraurosis vulvae. PREMARIN HAS NOT BEEN SHOWN TO BE EFFECTIVE FOR ANY PURPOSE DURING PREGNANCY AND ITS USE MAY CAUSE SEVERE HARM TO THE FETUS (SEE BOXED WARNING).

Concomitant Progestin Use: The lowest effective dose appropriate for the specific indication should be utilized. Studies of the addition of a progestin for 7 or more days of a cycle of estrogen administration have reported a lowered incidence of endometrial hyperplasia. Morphological and biochemical studies of the endometrium suggest that 10 to 13 days of progestin are needed to provide maximal maturation of the endometrium and to eliminate any hyperplastic changes. Whether this will provide protection from endometrial carcinoma has not been clearly established. There are possible additional risks which may be associated with the inclusion of progestin in estrogen replacement regimens. (See PRECAUTIONS.) The choice of progestin and dosage may be important; product labeling should be reviewed to minimize possible adverse effects.

CONTRAINDICATIONS: Estrogens should not be used in women (or men) with any of the following conditions: 1. Known or suspected cancer of the breast except in appropriately selected patients being treated for metastatic disease. 2. Known or suspected estrogen-dependent neoplasia. 3. Known or suspected pregnancy (See Boxed Warning). 4. Undiagnosed abnormal genital bleeding. 5. Active thrombophlebitis or thromboembolic disorders. 6. A past history of thrombophlebitis, thrombosis, or thromboembolic disorders associated with previous estrogen use (except when used in treatment of breast or prostatic malignancy).

WARNINGS: Long-term continuous administration of natural and synthetic estrogens in certain animal species increases the frequency of carcinomas of the breast, cervix, vagina, and liver. There are now reports that estrogens increase the risk of carcinoma of the endometrium in humans. (See Boxed Warning.) At the present time there is no satisfactory evidence that estrogens given to postmenopausal women increase the risk of cancer of the breast, although a recent study has raised this possibility. There is a need for caution in prescribing estrogens for women with a strong family history of breast cancer or who have breast nodules, fibrocystic disease, or abnormal mammograms. A recent study has reported a 2- to 3-fold increase in the risk of surgically confirmed gallbladder disease in women receiving postmenopausal estrogens.

Adverse effects of oral contraceptives may be expected at the larger doses of estrogen used to treat prostatic or breast cancer or postpartum breast engorgement; it has been shown that there is an increased risk of thrombosis in men receiving estrogens for prostatic cancer and women for postpartum breast engorgement. Users of oral contraceptives have an increased risk of diseases, such as thrombophlebitis, pulmonary embolism, stroke, and myocardial infarction. Cases of retinal thrombosis, mesenteric thrombosis, and optic neuritis have been reported in oral contraceptive users. An increased risk of postsurgery thromboembolic complications has also been reported in users of oral contraceptives. If feasible, estrogen should be discontinued at least 4 weeks before surgery of the type associated with an increased risk of thromboembolism, or during periods of prolonged immobilization. Estrogens should not be used in persons with active thrombophlebitis, thromboembolic disorders, or in persons with a history of such disorders in association with estrogen use. They should be used with caution in patients with cerebral vascular or coronary artery disease. Large doses (5 mg conjugated estrogens per day), comparable to those used to treat cancer of the prostate and breast, have been shown to increase the risk of nonfatal myocardial infarction, pulmonary embolism and thrombophlebitis. When doses of this size are used, any of the thromboembolic and thrombotic adverse effects should be considered a clear risk.

Benign hepatic adenomas should be considered in estrogen users having abdominal pain and tenderness, abdominal mass, or hypovolemic shock. Hepatocellular carcinoma has been reported in women taking estrogen-containing oral contraceptives. Increased blood pressure may occur with use of estrogens in the menopause and blood pressure should be monitored with estrogen use. A worsening of glucose tolerance has been observed in patients on estrogen-containing oral contraceptives. For this reason, diabetic patients should be carefully observed. Estrogens may lead to severe hypercalcemia in patients with breast cancer and bone metastases.

PRECAUTIONS: Physical examination and a complete medical and family history should be taken prior to the initiation of any estrogen therapy with special reference to blood pressure, breasts, abdomen, and pelvic organs, and should include a Papanicolaou smear. As a general rule, estrogen should not be prescribed for longer than one year without another physical examination being performed. Conditions influenced by fluid retention such as asthma, epilepsy, migraine, and cardiac or renal dysfunction, require careful observation. Certain patients may develop manifestations of excessive estrogenic stimulation, such as abnormal or excessive uterine bleeding, mastodynia, etc. Prolonged administration of unopposed estrogen therapy has been reported to increase the risk of endometrial hyperplasia in some patients. Oral contraceptives appear to be associated with an increased incidence of mental depression. Patients with a history of depression should be carefully observed. Preexisting uterine leiomyomata may increase in size during estrogen use. The pathologist should be advised of estrogen therapy when relevant specimens are submitted. If jaundice develops in any patient receiving estrogen, the medication should be discontinued while the cause is investigated. Estrogens should be used with care in patients with impaired liver function, renal insufficiency, metabolic bone diseases associated with hypercalcemia, or in young patients in whom bone growth is not complete. If concomitant progestin therapy is used, potential risks may include adverse effects on carbohydrate and lipid metabolism.

The following changes may be expected with larger doses of estrogen:

a. Increased sulfobromophthalein retention.
b. Increased prothrombin and factors VII, VIII, IX, and X, decreased antithrombin 3, increased norepinephrine-induced platelet aggregability.
c. Increased thyroid binding globulin (TBG) leading to increased circulating total thyroid hormone, as measured by PBI, T4 by column, or T4 by radioimmunoassay. Free T3 resin uptake is decreased, reflecting the elevated TBG; free T4 concentration is unaltered.
d. Impaired glucose tolerance.
e. Decreased pregnanediol excretion.
f. Reduced response to metyrapone test.
g. Reduced serum folate concentration.
h. Increased serum triglyceride and phospholipid concentration. As a general principle, the administration of any drug to nursing mothers should be done only when clearly necessary since many drugs are excreted in human milk.

ADVERSE REACTIONS: The following have been reported with estrogenic therapy, including oral contraceptives: breakthrough bleeding, spotting, change in menstrual flow; dysmenorrhea; premenstrual-like syndrome; amenorrhea during and after treatment; increase in size of uterine fibromyomata; vaginal candidiasis, change in cervical erosion and in degree of cervical secretion; cystitis-like syndrome; tenderness, enlargement, secretion (of breasts); nausea, vomiting, abdominal cramps, bloating; cholestatic jaundice; chloasma or melasma which may persist when drug is discontinued; erythema multiforme; erythema nodosum; hemorrhagic eruption; loss of scalp hair, hirsutism; steepening of corneal curvature; intolerance to contact lenses; headache, migraine, dizziness, mental depression, chorea; increase or decrease in weight; reduced carbohydrate tolerance; aggravation of porphyria; edema, changes in libido.

ACUTE OVERDOSAGE: May cause nausea, and withdrawal bleeding may occur in females.

DOSAGE AND ADMINISTRATION:

PREMARIN® Brand of conjugated estrogens tablets, USP

1. *Given cyclically for short-term use only.* For treatment of moderate to severe *vasomotor* symptoms, atrophic vaginitis, or kraurosis vulvae associated with the menopause (0.3 to 1.25 mg or more daily). The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible. Administration should be cyclic (eg, three weeks on and one week off). Attempts to discontinue or taper medication should be made at three- to six-month intervals.

2. *Given cyclically:* Female castration. Osteoporosis. Female castration—1.25 mg daily, cyclically. Adjust upward or downward according to response of the patient. For maintenance, adjust dosage to lowest level that will provide effective control. Osteoporosis—0.625 mg daily. Administration should be cyclic (eg, three weeks on and one week off).

Patients with an intact uterus should be monitored for signs of endometrial cancer and appropriate measures taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

PREMARIN® Brand of conjugated estrogens Vaginal Cream

Given cyclically for short-term use only. For treatment of atrophic vaginitis or kraurosis vulvae.

The lowest dose that will control symptoms should be chosen and medication should be discontinued as promptly as possible.

Administration should be cyclic (eg, three weeks on and one week off).

Attempts to discontinue or taper medication should be made at three-to-six month intervals.

Usual dosage range: 2 to 4 g daily, intravaginally, depending on the severity of the condition.

Treated patients with an intact uterus should be monitored closely for signs of endometrial cancer and appropriate diagnostic measures should be taken to rule out malignancy in the event of persistent or recurring abnormal vaginal bleeding.

References:

1. Whitehead MI, Townsend PT, Pryse-Davies J, et al: Effects of estrogens and progestins on the biochemistry and morphology of the postmenopausal endometrium. *N Engl J Med* 1981;305:1599-1605. **2.** Paterson MEL, Wade-Evans T, Sturdee DW, et al: Endometrial disease after treatment with oestrogens and progestogens in the climacteric. *Br Med J* 1980;280:822-824. **3.** Magos AL, Brincat M, Studd JWW, et al: Amenorrhea and endometrial atrophy with continuous oral estrogen and progestogen therapy in postmenopausal women. *Obstet Gynecol* 1985;67:496-499. **4.** Whitehead MI, Lane G, Siddle N, et al: Avoidance of endometrial hyperstimulation in estrogen-treated postmenopausal women. *Semin Reprod Endocrinol* 1983;1:1;41-52. **5.** Barnes RB, Roy S, Lobo RA: Comparison of lipid and androgen levels after conjugated estrogen or depo-medroxyprogesterone acetate treatment in postmenopausal women. *Obstet Gynecol* 1985;66:216-219.

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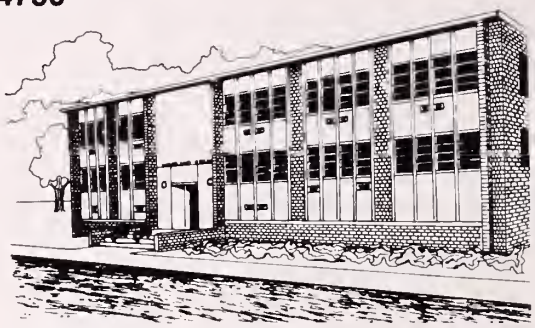

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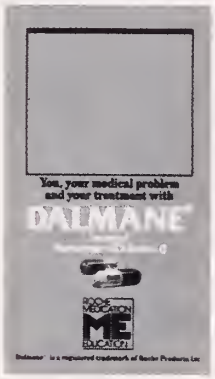

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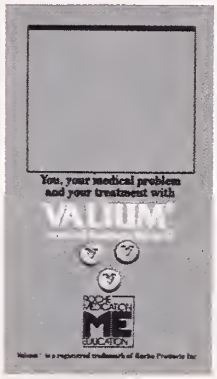

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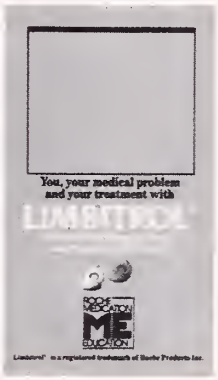

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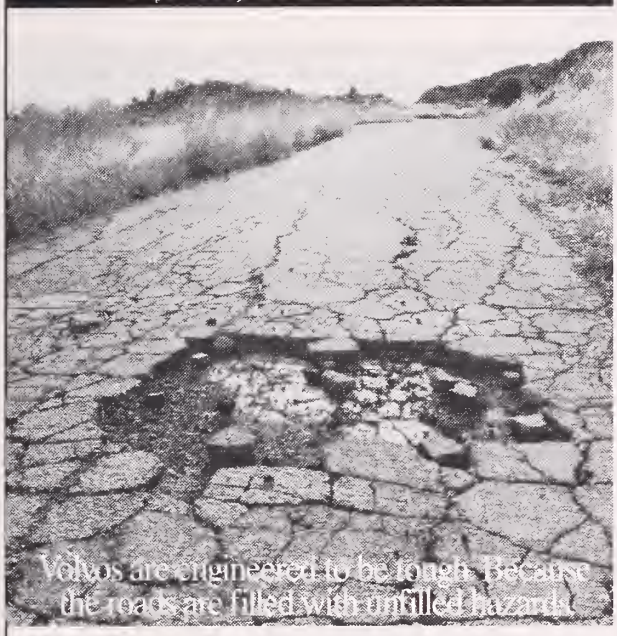

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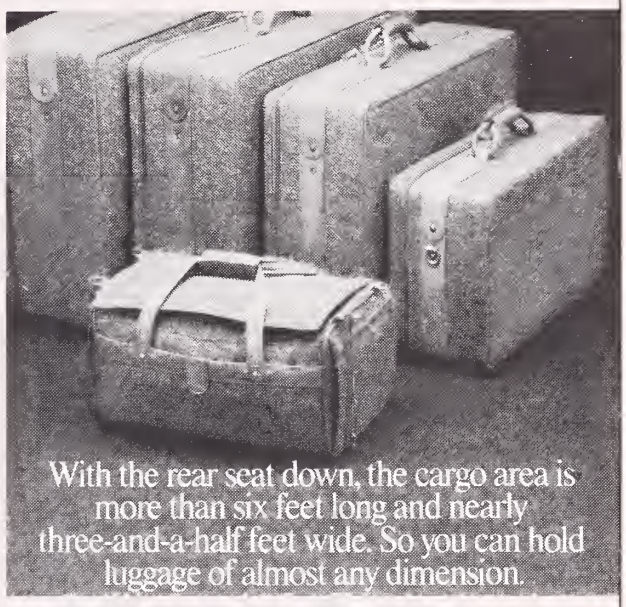

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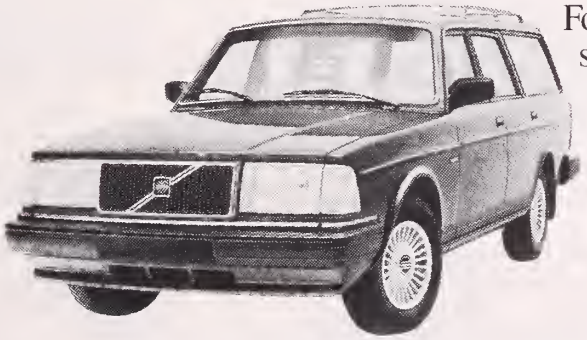

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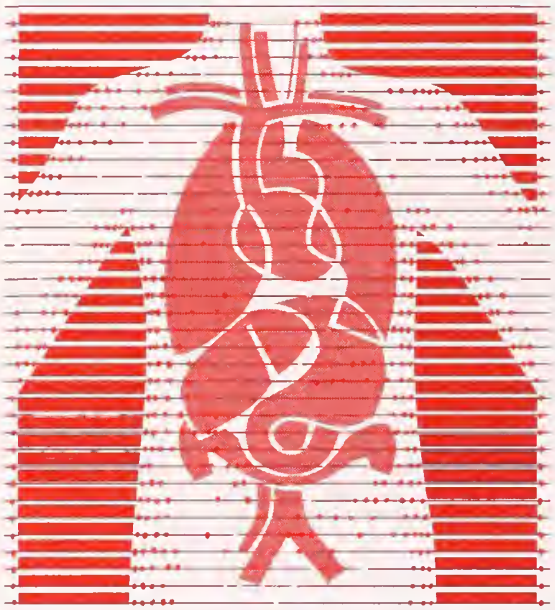

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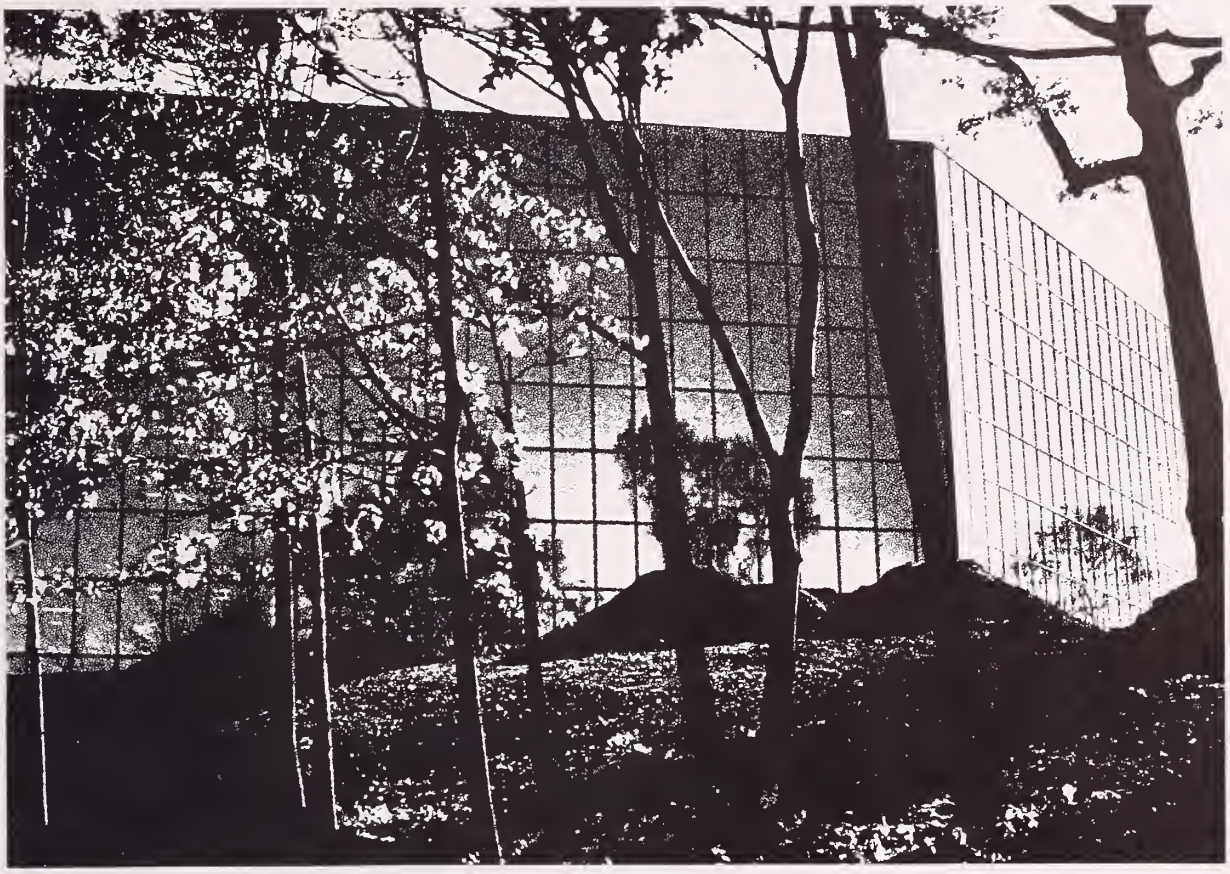

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NAME: Ann Amann, O.T. (R)/L.
OCCUPATION: Occupational Therapist, OVMC Rehabilitation Center at Woodsdale.
BACKGROUND: Earned B.S. in Occupational Therapy from University of Wisconsin-Madison. Registered with the American Occupational Therapy Association, and licensed with West Virginia and Ohio Occupational Therapy Boards. A native of Wisconsin, moved to Wheeling after graduation.
JOB SUMMARY: Guides patients to maximize independence in daily lifestyles by redeveloping lost motor skills, teaching new functional techniques and utilizing adaptive equipment.

Ann helps her patients return to their daily lifestyles through relearning the everyday activities they once performed before their accident or illness—activities such as dressing, preparing meals and doing housework. The patients' own goals and motivation are particularly important. "We show them what they can do with the limitations they may now have," Ann says. "We are working with the patients, helping them develop their own goals. All the time we're taking into consideration how they feel—what's meaningful to them. And it's exciting when you see them reach their goals."

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J-6138 January 1986

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* **WARNING**
This drug is not indicated for initial therapy of edema or hypertension. Edema or hypertension requires therapy titrated to the individual. If this combination represents the dosage so determined, its use may be more convenient in patient management. Treatment of hypertension and edema is not static, but must be reevaluated as conditions in each patient warrant.

Contraindications: Concomitant use with other potassium-sparing agents such as spironolactone or amiloride. Further use in anuria, progressive renal or hepatic dysfunction, hyperkalemia. Pre-existing elevated serum potassium. Hypersensitivity to either component or other sulfonamide-derived drugs.

Warnings: **Do not use potassium supplements, dietary or otherwise, unless hypokalemia develops or dietary intake of potassium is markedly impaired.** If supplementary potassium is needed, potassium tablets should not be used. Hyperkalemia can occur, and has been associated with cardiac irregularities. It is more likely in the severely ill, with urine volume less than one liter/day, the elderly and diabetics with suspected or confirmed renal insufficiency. Periodically, serum K^+ levels should be determined. If hyperkalemia develops, substitute a thiazide alone, restrict K^+ intake. **Associated widened QRS complex or arrhythmia requires prompt additional therapy.** Thiazides cross the placental barrier and appear in cord blood. Use in pregnancy requires weighing anticipated benefits against possible hazards, including fetal or neonatal jaundice, thrombocytopenia, other adverse reactions seen in adults. Thiazides appear and triamterene may appear in breast milk. If their use is essential, the patient should stop nursing. Adequate information on use in children is not available. Sensitivity reactions may occur in patients with or without a history of allergy or bronchial asthma. Possible exacerbation or activation of systemic lupus erythematosus has been reported with thiazide diuretics.

Precautions: The bioavailability of the hydrochlorothiazide component of 'Dyazide' is about 50% of the bioavailability of the single entity. Theoretically, a patient transferred from the single entities of triamterene and hydrochlorothiazide may show an increase in blood pressure or fluid retention. Similarly, it is also possible that the lesser hydrochlorothiazide bioavailability could lead to increased serum potassium levels. However, extensive clinical experience with 'Dyazide' suggests that these conditions have not been commonly observed in clinical practice. Angiotensin-converting enzyme (ACE) inhibitors can elevate serum potassium; use with caution with 'Dyazide'. Do periodic serum electrolyte determinations (particularly important in patients vomiting excessively or receiving parenteral fluids, and during concurrent use with amphotericin B or corticosteroids or corticotropin [ACTH]). Periodic BUN and serum creatinine determinations should be made, especially in the elderly, diabetics or those with suspected or confirmed renal insufficiency. Cumulative effects of the drug may develop in patients with impaired renal function. Thiazides should be used with caution in patients with impaired hepatic function. They can precipitate coma in patients with severe liver disease. Observe regularly for possible blood dyscrasias, liver damage, other idiosyncratic reactions. Blood dyscrasias have been reported in patients receiving triamterene, and leukopenia, thrombocytopenia, agranulocytosis, and aplastic and hemolytic anemia have been reported with thiazides. Thiazides may cause manifestation of latent diabetes mellitus. The effects of oral anticoagulants may be decreased when used concurrently with hydrochlorothiazide; dosage adjustments may be necessary Clinically insignificant reductions in arterial responsiveness to norepinephrine have been reported. Thiazides have also been shown to increase the paralyzing effect of nondepolarizing muscle relaxants such as tubocurarine. Triamterene is a weak folic acid antagonist. Do periodic blood studies in cirrhotics with splenomegaly. Antihypertensive effects may be enhanced in post-sympathectomy patients. Use cautiously in surgical patients. Triamterene has been found in renal stones in association with the other usual calculus components. Therefore, 'Dyazide' should be used with caution in patients with histories of stone formation. A few occurrences of acute renal failure have been reported in patients on 'Dyazide' when treated with indomethacin. Therefore, caution is advised in administering nonsteroidal anti-inflammatory agents with 'Dyazide'. The following may occur: transient elevated BUN or creatinine or both, hyperglycemia and glycosuria (diabetic insulin requirements may be altered), hyperuricemia and gout, digitalis intoxication (in hypokalemia), decreasing alkali reserve with possible metabolic acidosis. 'Dyazide' interferes with fluorescent measurement of quinidine. Hypokalemia is uncommon with 'Dyazide', but should it develop, corrective measures should be taken such as potassium supplementation or increased dietary intake of potassium-rich foods. Corrective measures should be instituted cautiously and serum potassium levels determined. Discontinue corrective measures and 'Dyazide' should laboratory values reveal elevated serum potassium. Chloride deficit may occur as well as dilutional hyponatremia. Concurrent use with chlorpropamide may increase the risk of severe hyponatremia. Serum PBI levels may decrease without signs of thyroid disturbance. Calcium excretion is decreased by thiazides. 'Dyazide' should be withdrawn before conducting tests for parathyroid function. Thiazides may add to or potentiate the action of other antihypertensive drugs. Diuretics reduce renal clearance of lithium and increase the risk of lithium toxicity.

Adverse Reactions: Muscle cramps, weakness, dizziness, headache, dry mouth; anaphylaxis, rash, urticaria, photosensitivity, purpura, other dermatological conditions; nausea and vomiting, diarrhea, constipation, other gastrointestinal disturbances; postural hypotension (may be aggravated by alcohol, barbiturates, or narcotics). Necrotizing vasculitis, paresthesias, icterus, pancreatitis, xanthopsia and respiratory distress including pneumonitis and pulmonary edema, transient blurred vision, sialadenitis, and vertigo have occurred with thiazides alone. Triamterene has been found in renal stones in association with other usual calculus components. Rare incidents of acute interstitial nephritis have been reported. Impotence has been reported in a few patients on 'Dyazide', although a causal relationship has not been established.

Supplied: **'Dyazide' is supplied as a red and white capsule, in bottles of 1000 capsules; Single Unit Packages (unit-dose) of 100 (intended for institutional use only); in Patient-Pak™ unit-of-use bottles of 100.**

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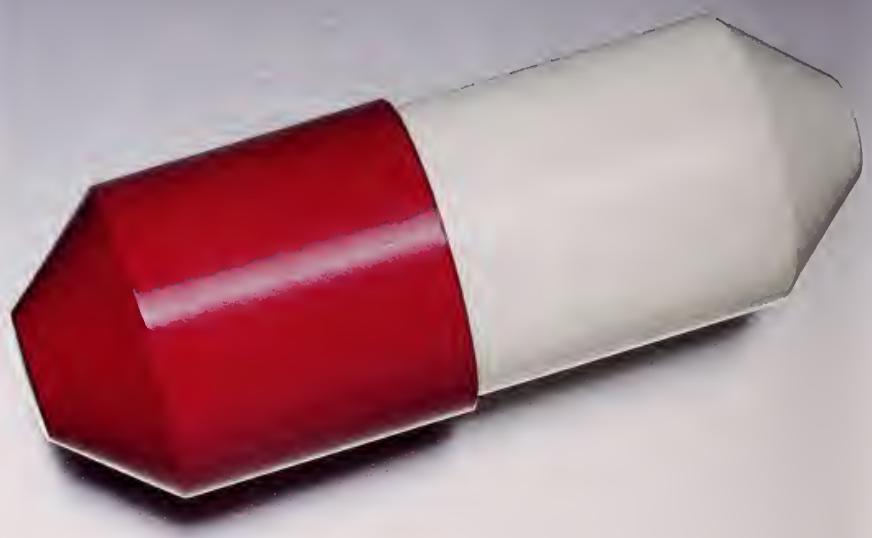

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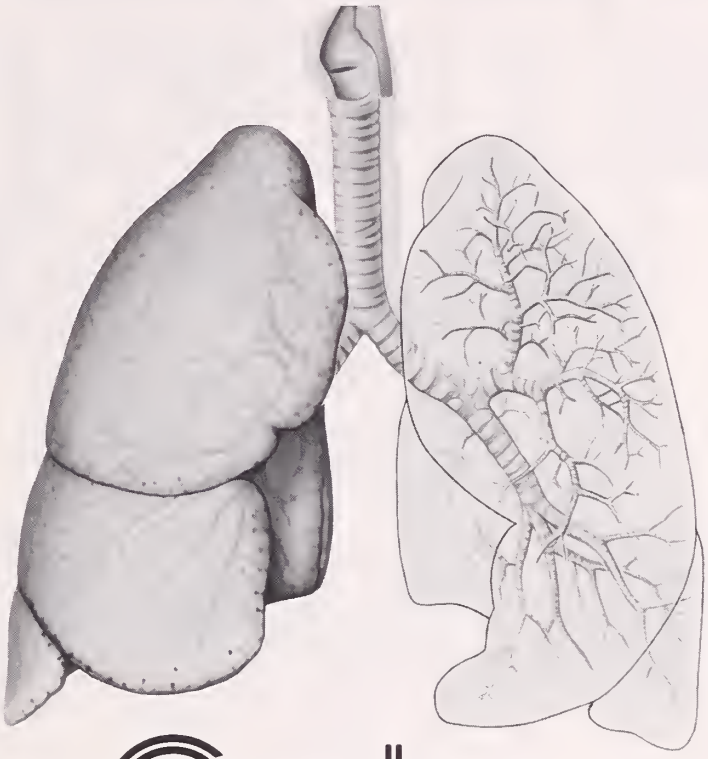

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Administer cautiously to allergic patients.

Pseudomembranous colitis has been reported with virtually all broad-spectrum antibiotics. It must be considered in differential diagnosis of antibiotic-associated diarrhea. Colon flora is altered by broad-spectrum antibiotic treatment, possibly resulting in antibiotic-associated colitis.

Precautions:
- Discontinue Ceclor in the event of allergic reactions to it.
- Prolonged use may result in overgrowth of nonsusceptible organisms.
- Positive direct Coombs' tests have been reported during treatment with cephalosporins.
- In renal impairment, safe dosage of Ceclor may be lower than that usually recommended. Ceclor should be administered with caution in such patients.
- Broad-spectrum antibiotics should be prescribed with caution in individuals with a history of gastrointestinal disease, particularly colitis.
- Safety and effectiveness have not been determined in pregnancy, lactation, and infants less than one month old. Ceclor penetrates mother's milk. Exercise caution in prescribing for these patients.

Adverse Reactions: (percentage of patients)

Therapy-related adverse reactions are uncommon. Those reported include:
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- Hypersensitivity reactions (including morbilliform eruptions, pruritus, urticaria, erythema multiforme, serum-sickness-like reactions): 1.5%; usually subside within a few days after cessation of therapy. These reactions have been reported more frequently in children than in adults and have usually occurred during or following a second course of therapy with Ceclor. No serious sequelae have been reported. Antihistamines and corticosteroids appear to enhance resolution of the syndrome.
- Cases of anaphylaxis have been reported, half of which have occurred in patients with a history of penicillin allergy.
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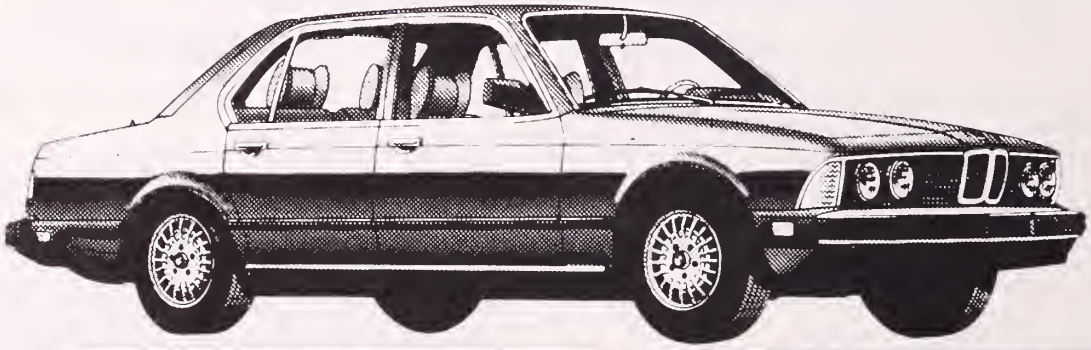

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Temporal Arteritis Presenting With Diplopia

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Chief Resident in Medicine, West Virginia University School of Medicine, Morgantown

JAMES E. BRICK, M. D.
Assistant Professor of Medicine, WVU School of Medicine

ROBIN McKENZIE, M. D.
Assistant Professor of Medicine, WVU School of Medicine

Visual loss is a well-recognized manifestation of temporal arteritis. Many physicians, however, are unaware that diplopia occurs in 10-15 per cent of cases and may be an early warning of impending visual failure. We report a 77-year-old female who presented with a 10-day history of diplopia. She also reported lethargy, weight loss, and myalgias. On physical examination, an isolated right lateral rectus muscle palsy was present. Computed tomography of the head and lumbar puncture were normal. A temporal artery biopsy showed classic features of giant cell arteritis.

When an elderly patient presents with diplopia, temporal arteritis should be considered. Since visual failure follows ocular palsy in approximately 50 per cent of untreated cases of temporal arteritis, treatment with steroids is urgent.

A 77-year-old woman was admitted to the hospital with a 10-day history of diplopia. She also reported lethargy, myalgias and a weight loss of 10 pounds over the previous two months. Chronic frontal headaches had not changed during the past 20 years. Current medications were hydrochlorothiazide and Inderal for hypertension. She reported minimal ethanol consumption. At age 17 she spent two years in a sanitarium for tuberculosis.

Physical examination showed an alert, thin female who was afebrile and normotensive. Temporal arteries were not tender and normal pulsations were present. Visual acuity was 20/20 in both eyes. A right lateral rectus muscle palsy was present. There was dullness and decreased breath sounds at the left base.

She had a hemoglobin value of 11.2 g/dL and a Westergren sedimentation rate of 109 mm/hr. Alkaline phosphatase was 245 IU/L and gamma glutamyl transferase was 234 IU/L (both elevated). The serum aspartate aminotransferase and bilirubin were normal. Chest x-ray showed old left pleural scarring. Skin tests with PPD, mumps, and candida were nonreactive. Computed tomographic scan of the head and lumbar puncture were normal. Rheumatoid factor and anti-nuclear antibody were both negative. Serum levels of complement components C_3 and C_4 were normal.

Temporal artery biopsy (Figure) revealed vessel occlusion with organizing thrombus and destruction and fragmentation of the elastic lamina with multinucleated giant cells. These are classic findings of giant cell arteritis.

Prednisone 30 mg/day and prophylactic isoniazid were begun. The lateral rectus muscle palsy resolved and systemic symptoms improved. By two months the ESR had decreased to 20 mm/hr.

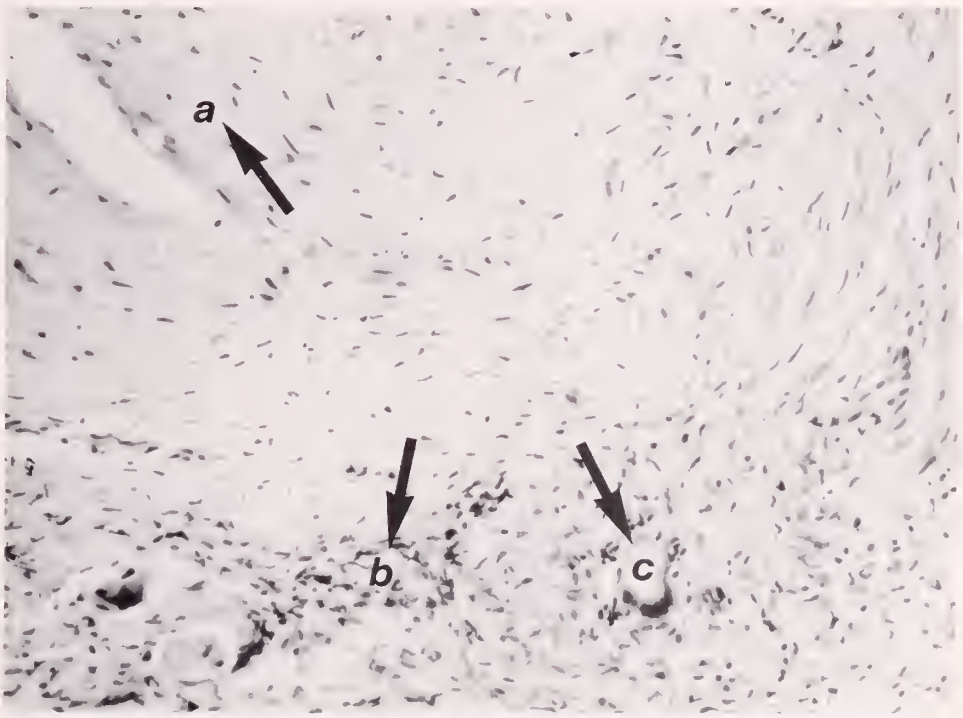

Figure. Biopsy specimen of the right temporal artery demonstrating occlusion of the lumen with organizing thrombus (a), destruction and fragmentation of the vessel wall (b), and diffuse inflammatory infiltrate with multinucleated giant cells (c) (hematoxylin and eosin stain, x 100).

Comment

Ocular signs and symptoms occur frequently with temporal arteritis. Visual failure, a dreaded complication, is a presenting symptom in seven to sixty per cent of cases.[1,2] Visual loss may occur abruptly but usually develops gradually or episodically two days to nine weeks after the onset of headache.[3] Initial symptoms include flashing light sensations, field cuts, hallucinations, misty vision, and amaurosis fugax.[3,4] When vision is lost in one eye, the risk of blindness in the other eye is approximately 50 per cent without therapy.[5]

Of the patients suffering visual loss, approximately 80 per cent at the time of presentation were found to have optic disc edema, and approximately 20 per cent had generalized retinal edema, suggesting infarction of the optic nerve head and central retinal artery occlusion, respectively.[6] Occasionally, profound visual loss is seen in a patient with few fundoscopic findings. Such patients may be suffering from retrobulbar ischemic neuropathy.[1]

Diplopia may be an early manifestation of temporal arteritis and may precede visual loss.[1,3,7] A history of diplopia may be obtained in 10 to 15 per cent of cases.[8] In two to three per cent of cases, it may be the presenting symptom.[2,6] Ocular muscle paresis is rarely demonstrable on physical examination.[7] When present, it is usually a variable and transient finding.[7] More than one extraocular muscle is usually involved.[9] There are only six previously reported cases of isolated lateral rectus muscle palsy with temporal arteritis.[2,10,11] The pathogenesis of extraocular muscle weakness appears to be ischemia of the muscles rather than ischemia of the cranial nerves.[12] The most common extraocular muscle involved is the third nerve producing unilateral or bilateral ptosis.[12]

Visual failure follows the ocular palsy in approximately one half of untreated cases, sometimes within a few days.[5] It is extremely important, therefore, to recognize cranial arteritis as a possible cause of diplopia and to begin steroid therapy early.[7]

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Manuscript Information

Manuscripts to be presented for publication in *The West Virginia Medical Journal* should be typewritten, triple-spaced, on one side only of firm (no onion skin or flimsy), standard letter sized (8½ by 11 in.) white paper. Wide margins at least 1¼ in. on left) should be left free of typing. On the first or title page should be shown the title of the article, the name (or names) of the author, and his degrees. Pages should be numbered consecutively, the page number being shown in the right upper corner along with the surname of the author.

Where reference is made to generically-designated drugs, the first such reference must be followed by parentheses containing the most commonly known trade-name drug of that designation. In addition, a listing of all generic drugs mentioned in the article, with their trade-name equivalents, should appear at the end of the article.

A short abstract summarizing the manuscript should be included. This should be typed in double space on a separate page.

Authors are requested to submit a copy with the original.

Illustrations should be numbered and their approximate locations shown in the text. Each should be identified by placing on its back the author's name, its number and an indication of its "top." Drawings and charts intended for reproduction should be done in black (India) ink on pure white. Photographs should be on glossy paper and minimum of about 5 by 7 in. in size. Cost of printing black and white photos in excess of 4 will be billed to author, and no more than 25 references will be published free of charge to the author. A legend should be provided for each illustration and, preferably, attached to it.

All scientific material appearing in *The Journal* is reviewed by the Editorial Board. Manuscripts should be mailed to The Editor, West Virginia Medical Journal, Box 4106, Charleston, W. Va. 25364.

1986 Van Liere Memorial Research Convocation

The 1986 Van Liere Memorial Research Convocation for students in the West Virginia University School of Medicine was held March 28. These yearly convocations enable students in the School of Medicine to present the results of their research activities in competition for the Edward J. Van Liere Award and other prizes.

The Van Liere Award, consisting of a plaque and a check for $200, was established in 1965 by the action of the faculty of the School of Medicine to recognize the research efforts of the students and to honor the late Dr. Edward J. Van Liere, who served as Chairman of the Department of Physiology from 1921-1955 and as Dean of the School of Medicine from 1935-1961.

The competition is organized into two categories—the Graduate Student Research Competition and the Van Liere Award Competition, the latter category open only to students presenting data from research done by them as undergraduate or medical students. Twenty students participated in the 1986 Convocation — eight in the Van Liere Award competition, and 12 in the Graduate Student Research competition.

The winner of the Van Liere Award this year (the 22nd) was John Dagirmanjian, a second-year student; the first runner-up and winner of a check for $100 was Cynthia Whitener, also a second-year student. This year there was a tie for second runner-up between Laurie Gutmann, fourth year, and Debra L. Pederson, second year. Both of them were awarded checks for $50.

The first prize, a check for $200, in the Graduate Student Research competition was awarded to Kevin Gaido; the second-place prize, a check for $100, was awarded to Russell A. Hammond, and the third-place prize, a check for $50, went to Leonard Sauers. Hammond is a graduate student in the Department of Biochemistry, and Gaido and Sauers are graduate students in the Department of Pharmacology and Toxicology.

The publication of the abstracts of the winning presentations in *The West Virginia Medical Journal* constitutes an important and greatly appreciated recognition of the research efforts of our students.

W. E. Gladfelter, Ph.D., *Chairman*
Van Liere Memorial Research
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ATP^{4-} Receptor In The Guinea Pig Vas Deferens

JOHN DAGIRMANJIAN
Medicine II, Bowie, MD
ELLIOTT CHIDECKEL, M. D.
JEFFREY S. FEDAN, Ph.D.

ATP produces contraction of the isolated guinea pig vas deferens. This response is due to the interaction of ATP with P_2-purinergic receptors. When ATP^{4-} is added to Krebs-Henseleit physiological solution containing Mg^{2+} and Ca^{2+}, $NgATP^{2-}$ and $CaATP^{2-}$ are formed. Our objective was to determine whether ATP^{4-}, $MgATP^{2-}$, or $CaATP^{2-}$ is the principal moiety which interacts with the P_2-receptors to cause contraction. To do this, contraction responses to ATP were obtained under several conditions to give known ATP^{4-} concentrations in the organ baths. These conditions were: 1) Ca^{2+} held constant and ATP varied, and 2) Mg^{2+} held constant and ATP varied. Curves of [ATP^{4-}] *vs.* response and [ATPtotal] *vs.* response were then plotted.

Regardless of the conditions, responses to the known ATP^{4-} concentrations were coincident at any Mg^{2+} concentration in the baths. In contrast, curves for ATPtotal concentrations (which approximate responses to $MgATP^{2-}$) were not coincident. In other words, since a given concentration of ATP^{4-} causes approximately the same amount of contraction under varying cationic conditions in the baths, the suggestion is that ATP^{4-} is the moiety that is recognized by the P_2-receptor.

Our findings agree with those of other investigators who found that ATP^{4-} is the specie which induces histamine secretion from rat mast cells. Our findings are significant in that ATP^{4-} is only a small fraction of the total ATP concentration under conditions of physiological Mg^{2+} concentration. Therefore, ATP appears to be more potent than previously believed.

Epinephrine-Induced Renin Secretion: Possible Role Of Heart And Lungs

CYNTHIA WHITENER
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MICHAEL D. JOHNSON, Ph.D.

It is well established that circulating epinephrine (E) has a great stimulatory effect on renin secretion, but the mechanism by which this is achieved remains unclear. It is thought that E acts extrarenally since renal arterial E infusions do not lead to an increase in renin secretion while intravenous E infusions do. The present experiments examined whether an elevation of the circulating E concentration in the vascular supply to either the heart or the lungs could account for the increase in renin secretion by E. Consequently, 14 anesthetized dogs were prepared with catheters for infusion of E into 3 sites: (1) the aorta, near the brachiocephalic junction, (2) the left ventricle, and (3) near the right atrium. The order of the infusions was randomized. Urine, arterial, and left renal venous samples were obtained before, during, and after 30-minute infusions of E at each site in each dog to determine renin secretion rates.

E infusion rates of both 15 $ng \cdot kg^{-1} \cdot min^{-1}$ and 75 $ng \cdot kg^{-1} \cdot min^{-1}$ yielded changes in renin secretory rates that were independent of the site of infusion. These data are consistent with the null hypothesis that neither the heart nor the lungs is involved in initiating E-induced renin secretion. At the infusion rate of 75 $ng \cdot kg^{-1} \cdot min^{-1}$, though, plasma E concentrations in left ventricular blood during aortic E infusions were 50 ± 6 per cent of the E concentrations measured in aortic blood during left ventricular E infusions.

It is concluded that the failure of the various infusion sites to generate different renin secretory responses in these experiments may have been due to the unexpected degree of recirculation of E, rather than to the lack of involvement of the heart or the lungs in the initiation of circulating E-induced renin secretion.

Relationship Between Diet-Induced Thermogenesis And Cardiovascular Fitness And Body Composition In Women

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Diet-induced thermogenesis (DIT) is the amount of energy expended as heat following the consumption of carbohydrates and protein. The results of previous studies have been contradictory: therefore, the parameters influencing DIT are not clearly defined. Since few women have been considered as subjects, we examined DIT in relation to cardiovascular fitness and body composition in 17 women, ages 26-51. They were tested after a 12-hour fast and in a supine position during the test. After resting metabolic rate (RMR) was determined, each subject was given an 800 kcal liquid meal. Following the meal, O_2 consumption (VO_2) was determined at 10-minute intervals for 155 minutes. Maximal oxygen consumption (VO_2 max) and per cent body fat were determined.

DIT was positively correlated with per cent body fat ($r=.53$, $p<0.05$). There was an inverse correlation between VO_2 max and per cent fat ($r=-.83$, $p<0.001$). No significant relationship was found between DIT and VO_2, RMR, resting respiratory quotient (RQ), or lean body mass (LBM).

Considering two age groups — <40 years old ($\bar{X}=31\pm4.5$) and >40 years old ($\bar{X}=45\pm4.1$) — a significant difference in DIT was found ($p<0.001$), with a higher DIT in the older age group ($\bar{X}=53.05\pm5.24$) vs. ($\bar{X}=34.93\pm6.37$). Body fat was greater ($p<0.015$) in the older age group ($\bar{X}=29.02\pm8.92$) vs. ($\bar{X}=19.43\pm4.37$). There were no significant diffferences in VO_2 max, total body mass, LBM, resting RQ, or RMR.

The results of this study show DIT to increase with increasing body fat and with increased age. No correlation between DIT and level of fitness was evident. Lack of significant correlations with other parameters appear to be the result of intrasubject variability and the complex relationship between the parameters.

Effects Of Antimicrobials On Blood Cultures In Experimental Bacterial Endocarditis

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The diagnosis of endocarditis is often considered in patients who have received antibiotics. The effects of these prior antibiotics on subsequent blood cultures in endocarditis is unclear. The rabbit model of endocarditis was used to study this problem.

Endocarditis was established in the rabbit by inserting a catheter across the aortic valve, infecting the valve three days later by injecting 10^8 viridans streptococci intravenously, and then removing the catheter. One half of the rabbits were given penicillin for 48 hours (mean peak—5 ug/ml). Control rabbits were untreated. Qualitative and quantitative blood cultures were obtained every one to three days until death or sacrifice at two weeks. Valves were cultured quantitatively.

A total of 52 rabbits was injected with viridans streptococci. Four were not infected and had negative blood cultures and valve cultures. Two died before blood cultures were drawn and had positive valve cultures at necropsy. Nine rabbits cleared their infections. (Blood cultures were positive initially but became negative; valve cultures were negative). The remaining 37 rabbits all had positive valve cultures; 15 were in the penicillin group and 22 were untreated.

Of 22 controls with positive valve cultures, 16 had all blood cultures positive after the second day. Death occurred a mean of seven days after infection. For 15 treated rabbits with positive valve cultures, blood cultures drawn after penicillin had cleared from the blood were all positive in seven rabbits, and unobtainable in three. Death occurred a mean of 11 days after infection. In each group, one rabbit had intermittently positive blood cultures. Five control and four untreated rabbits had negative blood cultures for the terminal 9-12 days and, yet, after sacrifice, had positive valve cultures (10^2 – 10^8 CFU/g of tissue). Quantitative blood cultures showed little effect of penicillin after penicillin had cleared from the blood.

Mechanisms Of Benzene-Induced Myelosuppression

Hydroquinone Inhibition Of Bone Marrow Stromal Cell Function Via Prostaglandin Synthetase Activity

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Benzene is a solvent that is widely used in industrial and commercial applications. Exposure to benzene is known to result in a variety of blood dyscrasia including aplastic anemia in severe cases, or in general myelosuppression which is manifested by leukopenia, lymphopenia or anemia. Moreover, benzene exposure can lead to the formation of acute myelogenous leukemia in susceptibile individuals. Ultimately, polyhydroxy metabolites of benzene, which form in the body and concentrate within the bone marrow, are responsible for this hematotoxicity. We have previously demonstrated that benzene metabolites (hydroquinone, benzoquinone) are toxic to bone marrow stromal cells which are involved in the support and regulation of hemopoiesis. Recent studies implicate prostaglandin synthetase in the activation of quinone metabolites of benzene to reactive products.

The goal of these studies was to determine the role of prostaglandin synthetase activity in the suppression of stromal cell function by hydroquinone, a major metabolite of benzene. Stromal cell cultures established from male B6C3F1 mice were treated with doses of hydroquinone (10^{-7} to 10^{-4} M). Some cultures were treated with indomethacin (10^{-6} M), an inhibitor of prostaglandin synthetase activity, one hour prior to treatment with hydroquinone. The cultures were incubated for three days and then used in coculture with non-exposed bone marrow cells overlaid in agar. Stromal cell function was measured by the number of granulocyte/monocyte (G/M) colonies which developed in agar after incubation.

Hydroquinone at 10^{-7} – 10^{-5} M increased PGE_2 levels, a measure of prostaglandin synthetase activity, by 80-100 per cent and inhibited stromal cell supported G/M colony formation by 20-40 per cent as compared with control values. Indomethacin prevented an increase in PGE_2 levels in hydroquinone treated cultures and protected against toxicity. These results suggest that suppression of stromal cell function by hydroquinone is related to prostaglandin synthetase activity and implicates prostaglandin synthetase activity in the myelosuppression associated with benzene exposure.

DNA Polymerase Delta: A Mammalian Replicative Enzyme?

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Accurate DNA replication is a fundamental process for the reproduction of all cells and organisms. The enzymes responsible for this process are called DNA polymerases. Mammalian cells have three well-established DNA polymerases, alpha, beta, and gamma. A fourth polymerase designated delta, which is unique in that it has intrinsic 3'→5' exonuclease activity, has recently been identified. Our investigations were aimed at determining the roles of these polymerases in replication through the use of the differential inhibitors aphidicolin, butylphenyl deoxyguanosine triphosphate (BuPdGTP), dideoxythymidine triphosphate (ddTTP), and anti-polymerase alpha monoclonal antibodies.

In the past, investigators showed that aphidicolin, which inhibits alpha but not beta or gamma, inhibits DNA replication and concluded that polymerase apha was the major replicative enzyme. However, since aphidicolin also has been shown to inhibit delta, this conclusion is suspect. Recently, the new inhibitors BuPdGTP and specific monoclonal antibodies have been shown to inhibit alpha and delta differentially. Since some of these inhibitors cannot enter intact cells, our investigations utilized a permeable cell system. We found that ddTTP (which inhibits beta and gamma) does not inhibit replication, whereas aphidicolin inhibits DNA replication, implicating alpha and/or delta as the replicative polymerase(s). Experiments using a concentration of BuPdGTP that abolishes alpha activity and only partially inhibits delta activity, showed a significant portion of replication is uninhibited. Furthermore, anti-alpha antibodies only inhibited replication 70 per cent in permeable cells. Also, the addition of both BuPdGTP and antibody did not inhibit replication more than either alone.

These novel data provide the first evidence that alpha is not the only polymerase involved in replication, but that delta also has a major role. Since delta has 3'→5' exonuclease activity, it may be responsible for "proof-reading," thus ensuring fidelity of mammalian replication.

Immunotoxicity Of Cationic Amphiphilic Drugs

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There are numerous drugs which have an ability to suppress the immune response, and it has been shown that patients on therapy with these drugs demonstrate an increase in the incidence of infection and cancer. We have begun research on an extensively used class of drugs, cationic amphiphilic drugs (CADs), on immune function. We have determined that CADs have an immunotoxic potential. In the presence of therapeutic concentrations of chlorphentermine (CP), fluoxetine, chlorcyclizine and iprindole, mouse splenic and human peripheral blood lymphocytes have a decreased responsiveness to mitogens. In addition, mice treated *in vivo* with CP have a depressed ability to generate a delayed-type hypersensitivity response and to produce antibodies. To investigate the mechanism of CAD - induced immunotoxicity, we have focused on CP as the model drug.

Our results have shown that if lymphocytes are exposed to CP 10 minutes after they are exposed to mitogen, the drug has no inhibitory effect. These data suggest that CP inhibits an early event in lymphocyte activation. The first event in lymphocyte activation involves the binding of the mitogen to its receptor on the lymphocyte membrane. Since mitogens can induce lymphocytes to agglutinate only after there has been a mitogen/receptor interaction, we investigated the effects CP had on mitogen-induced agglutination. Our results have shown that CP can significantly potentiate mitogen-induced agglutination of human lymphocytes. Potentiation of agglutination is based on the integrity of membrane phospholipids. Since changes in membrane phospholipids are another early event in lymphocyte activitation, we investigated whether CP had an effect on the incorporation of choline into cellular phospholipids and on the synthesis of inositol phosphates.

Our results have shown that overall CP incorporation and inositol phosphate synthesis are suppressed in the presence of CP. Our investigations have thus far shown that CADs are potentially immunotoxic in humans and that the toxic effect is mediated by drug-induced changes at the membrane level. These changes may result in a decreased formation of inositol phosphates, which are believed to be the second messenger necessary for the continuation of lymphocyte activation.

Changes For Physicians, Physician Corporations Under Tax Reform Act

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The Tax Reform Act of 1986 will make sweeping changes in the tax code which will affect both individual medical practitioners and physician corporations. Since many of these changes will take effect January 1, 1987, individual physicians and managers of physician corporations should take the right steps prior to December 31, 1986.

Changes That May Affect Physicians' Personal Taxes Next Year

CHANGES IN RATES AND DEDUCTIONS: Individual tax rates are coming down. The top rate for 1987 income will be 38.5 per cent, down from 50 per cent, and will be further reduced to 28 per cent in 1988. The personal exemption amount will be $1,900 per dependent for the 1987 tax year, increasing in subsequent years to $2,000 in 1989. The deduction for a married couple who both work as well as income averaging will be repealed as of the 1987 tax year. For patients who itemize, medical expenses will be deductible only if they exceed 7.5 per cent, increased from five per cent, of the patient's adjusted gross income. Sales tax will no longer be deductible for tax years after 1986. Interest payments will not be deductible for personal interest (such as car loans and credit card balances) except for interest paid on debts secured by a principal or second residence, and then only if the debt is less than the purchase price of the residence plus the cost of improvements. This limitation will not apply if the debt is incurred for certain educational or medical purposes. Many banks are already offering lines of credit secured by a borrower's home which can be used as needed to purchase cars or other personal items. Taxpayers considering these loans should be careful to weigh the tax benefit of the interest deduction against the often higher rates of interest charged on these loans when compared to non-deductible financing offered, for example, by car manufacturers.

HEALTH INSURANCE: With certain limitations, 25 per cent of health insurance premiums paid by self-employed individuals may be deducted in tax years 1987-1989 against income from self-employment rather than being taken as an itemized deduction.

TAX SHELTERS: Losses from passive activities or tax shelters for tax years after 1986 will generally (subject to a phase-in of these provisions over the next few years) not be deductible against earned income, such as income from a medical practice. To alleviate this problem, some experts speculate that a market will arise in passive investments that actually generate gains rather than losses.

CAPITAL GAINS: The effective tax rate for capital gains will be the same as that for ordinary income for tax years after 1986.

IRAs: Contributions to Individual Retirement Accounts will be deductible as usual for tax years after 1986 for individuals who are participants in employer pension plans only if they have adjusted gross in-

"Physicians planning a major sale of capital assets should consider completing the sale in December of 1986 rather than waiting until 1987 as the rates for capital gains will effectively be higher next year."

come of $25,000 or less for single individuals or $40,000 or less for joint filers.

UNEARNED INCOME OF A MINOR: Unearned income of minor children under the age of 14 will be taxed at their parents' top marginal tax rate if a child's unearned income exceeds $1,000 in any tax year after 1986.

What Physicians Might Consider in Response to These Changes

Physicians planning a major sale of capital assets should consider completing the sale in December of 1986 rather than waiting until 1987 as the rates for capital gains will effectively be higher next year. Also, for itemizers, the sales tax on big-ticket items will be deductible only if the purchases are made no later than December 31, 1986. Physicians should think carefully before withdrawing funds from an Individual Retirement Account merely because future contributions may not be deductible, as there are still penalties for withdrawal, and also because, although contributions may not be deductible in the future, income earned on assets in an IRA will still be tax deferred.

Changes That May Affect Physician Corporations

Many physicians incorporated their practices in recent years for a variety of reasons. Often these physicians were motivated by a need to limit liability other than malpractice liability (which is not affected by incorporation) or to offer more extensive employee benefits packages and pension plans. Some were even able to achieve tax advantages from use of a fiscal year other than the calendar year. Whatever the reason for incorporation, managers of physician corporations need to plan ahead now for the coming tax changes.

RATES AND DEDUCTIONS: Corporate tax rates will be lower next year, with the top rate at 34 per cent for taxable years beginning on or after July 1, 1987. As most physician corporations pay large portions of their proceeds as salary and pension contributions, the impact of this change may be minimal for many physician corporations. Also, the corporate alternative minimum tax, a tax which in effect shrinks deductions, has more stringent provisions respecting depreciation and has a new section which applies the tax both to "book" income as well as "taxable" income.

PENSIONS: As explained above, if a physician corporation has a pension plan, covered employees who have adjusted gross income in excess of $40,000 for joint filers or $25,000 for single individuals, will be subject to a phase-out of their deduction for IRA contributions. Also, the discrimination rules concerning disqualification of a pension plan for favoring highly compensated employees will be more stringent under the Tax Reform Act of 1986.

CHANGES IN ACCOUNTING: Most physician corporations use the cash method of accounting rather than the accrual method (under the cash method, receipts and disbursements are taxable in the year received or paid rather than in the year billed). Physician corporations who have physician stockholders other than present or retired employees should consult their tax advisors to determine whether they are still eligible to use the cash method for tax years beginning after December 31, 1986, as new rules greatly restrict the use of the cash method. Also, medical corporations which use a fiscal year other than the calendar year may have to change their fiscal year to the calendar year under the new rules.

What Managers of Physician Corporations Might Consider in Response to These Changes

Managers of physician corporations who are planning to take any of the actions listed below should seriously consider completing them before the tax changes go into effect:

COMPLETE RETIREMENT: Any practitioner in a physician corporation who is approaching retirement and is considering selling his or her entire practice and liquidating the corporation, should be aware that the capital gain he or she realizes on sale of the practice will be taxed at effectively higher rates after December 31, 1986. For some physician corporations, gain realized on sale and liquidation of the corporation's assets may also be taxed twice, once to the corporation and then again to the physician shareholders, if the transaction is not completed before December 31, 1986, although extended relief is generally available for smaller corporations.

MAJOR CHANGES IN OWNERSHIP: If a medical corporation expects to experience a 50-per cent or greater change in share ownership, and the physician corporation has incurred substantial tax losses in previous years, the extent to which the newly structured physician corporation will be able to use those losses to offset future income may depend on whether the change takes place before or after December 31, 1986.

SUBCHAPTER S ELECTIONS: While shareholders generally pay tax only on dividends received from a corporation or on gain from the sale of their shares, if a corporation elects "subchapter S" status, then all income generated by the corporation flows through to the tax returns of the shareholders. If the physician shareholders of a medical corporation are considering electing subchapter S status in the future, they should consult their tax advisor concerning new tax rules which may add an extra tax on the sale of corporate property.

Overall, there will be winners and losers under the new tax rules. Unfortunately for doctors who would rather concentrate on the practice of medicine than on taxes, delaying decisions on tax matters until next year could result in the payment of extra tax.

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President's Page

Holiday Thoughts

It's fruit cake time!

One can feel it in the air, that special time of the year when we prepare for Christmas. Which is the most enjoyable — the holiday itself or all the preparations?

With the Thanksgiving holiday just passed and the Christmas holiday just ahead, these twin celebrations of gratitude and love are what make this time of year so very special, filled with memories, traditions and great anticipations.

With all the problems facing our profession and our society, were it not for these holidays, we might become cynical, disheartened and lose our perspective. But these holidays come just in time to remind us, when we need it most, that we are a blessed and fortunate people. Among these blessed people, physicians are especially privileged. We have received a bountiful education and entered into our communities to deliver a vital and needed service — medical care. Being a physician requires us to apply knowledge and technical skills with compassion, kindness and understanding. This application is the art and science of medicine. It demands our very best and, in requiring a life-long commitment to excellence, blesses each of us immeasurably.

With such thoughts filling me at this time of year, you will appreciate why I cannot write about tort reform, malpractice, peer review, alternative health care delivery systems, cost containment and all the other surprise packages that belong to the socio-economic part of our profession. These challenges remind us of the imperfect nature of our world, the "humaness" of our society, and they remain to be solved. But, more than that, they disclose the opportunities to bring changes and improvements for our profession and communities.

This season is the time for renewal of our spirits. Linda and I wish for you and yours a great big slice of Holiday Joy.

Charles E. Turner, M. D., *President*
West Virginia State
Medical Association

DRGs Revisited

Surprise! DRGs are not saving any money!

So say a couple of Harvard economists in a recently-completed study. You may recall that it was Harvard which initially sold Congress and the Reagan Administration the concept.

Now, in a new study by Harvard economists William Hsiao and Daniel Dunn and MIT Public Policy Professor Harvey Sapolsky, the researchers conclude that the New Jersey model experiment did nothing to reduce overall hospital costs, but did improve access to care for the uninsured.

The study notes that the average length of stay "dropped sharply," but increased admission rates went up sufficiently to offset the revenue savings generated from the shorter lengths of stay. In the words of the study's authors, "hospitals have an incentive to increase admissions under DRG-based payment."

Hospitals with large proportions of charity and bad debt care gained from the system, the study reveals. Their revenue per case has grown while hospitals which previously had surplus or were breaking even have experienced decreases in rate of growth.

While much has been made of the ability of hospital administrators to use the DRGs to pressure physician behavior, the study found that although administrators find DRGs an "awkward management tool," "a significant shift in administrator-physician relations turned out to be exceedingly rare.

Just how the study and its findings will be utilized by the Administration remains to be seen, but the message to one and all should be loud and clear: America cannot continue to provide high-quality medical care to increasing numbers of citizens without paying for it.

The researchers ultimately conclude, "(the system) invites cost shifting before cost saving." How many of our WVSMA members could have told the social planners that before the government embarked upon the payment scheme? There is no free lunch; care delivered must be paid for one way or another.

Organized medicine has an obligation to work for the ethical practice of medicine, and that includes working to assure honest value for services rendered. And it is no secret that every ethical physician worthy of the name delivers his/her share of uncompensated care to needy patients each and every week, month and year.

The question now is, how long can physicians continue to deliver free care in the face of continually rising costs of staff wages, supplies, utilities, rent AND Professional Liability Insurance? Especially when faced with a variety of caps and free limits placed upon them by government programs and third-party payors?

Unfortunately, our nation will never be short of social planners, various and assorted liberals and others who will continue to promote the "social state" system of providing medical care. It remains to be seen whether capitalism or socialism will ultimately prevail.—MGS

Literacy – Illiteracy

Massive public relations programs are under way promoting the war on illiteracy. It is now said that one out of every 10 people in the United States is "functionally illiterate." A figure for West Virginia is 250,000 out of a population of 1,750,000, or one in seven, who are unable to read well enough to ready newspapers, fill out job applications or vote without assistance. This writer has heard and read about massive efforts all over the country to teach such unfortunate people to read and write: a valuable and laudable program, especially as it involves volunteer efforts in many community projects.

Modern apologists for the non-learning reading methods point to several reasons they believe students drop out of school: (1) unfavorable geography of the region, (2) unfavorable home financial situation, (3) families moving from place to place, and (4) variable ages at which children can learn to read. And on and on. Significantly, almost nothing is being said about the chief reason children get through high school and graduate as functional illiterates. The fact is that a tremendous number of children drift through the first four years of school *not* being taught to read. Why? How can that be? You may well ask. Concerned investiga-

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tors have found that modern materials and methods for learning to read date back to the intellectual revolution of the 1950s in the education industry. Up to that time, methods of teaching reading employed chiefly phonics, i.e. the sounds of letters and syllables as the foundation for recognizing words. Whether or not the followers of the Dewey philosophy of education were responsible for the change, someone with influence caused to be introduced a reading learning method which emphasized "word pictures" for word recognition rather than sounds of the letters.

As has been pointed out repeatedly, language is not composed of word pictures, but of *sounds*. The transfer of the spoken word to the printed page does not take place by a word picture, but as the multiple sounds that make up a word. Why, then, do writers of text books try to make the reverse process dependent on *pictures* of the words, rather than on their *sounds?*

It is difficult to imagine why a method of teaching, that taught virtually every normally intelligent individual to read, should have been abandoned in favor of a theory set forth by educational theorists. One might make a good case for the deliberate sabotage of our educational system; for, if one cannot read, how can one learn *anything?*

For many years now, program after program of remedial reading has been set up in every grade from the second grade to college. The increasing number of non-readers has made little impression on the curriculum-makers, however, as they keep on not teaching children to read in Grade 1, and redoubling efforts and expenditures in vain attempts to undo the damage by constructing bandaid "remedial" courses from the second grade on.

What, then, is the answer? We are committed to helping functionally illiterate adults to become literate, but how effective can this be, when we are turning out more illiterate students than can be taught in the adult population?

A recent figure of three million adults in literacy programs is far exceeded by the number of functional illiterates being turned out by, or being dropped out of, our public schools. What is the remedy? It's already too late by the time a child reaches the eighth grade, for we can only try to remedy his unfortunate situation. But it's not too late to start teaching first-graders the alphabet letters and sounds and preparing them to pick up and read books at their learning levels. Only, *who will be willing or able to buck the education bureaucracy* and achieve another revolution: this time from a non-learning method to a learning one?—JNJ

Students Down – Faculty Up

The AMA Division of Medical Education recently revealed its 1985-86 statistics for medical students and faculty.

Student applications and enrollment are both down. First-time enrolled students numbered 16,337, a decrease of 122 from 1984-85. Applicants to medical school now have a slightly better than one-in-two chance of being accepted. Of the total enrollment of 66,604 in all classes in the 127 U.S. medical schools, one third were women, and 16.5 per were minority students, of whom 5.3 per cent were black.

Despite the drop in student enrollment, full-time medical school faculty increased over four per cent to a total of 61,372. Part-time faculty numbered 10,531, and volunteer faculty were a healthy 113,935.

These data alone reveal a lot of what's happening in medical education, but the unexpected increase in full-time faculty in an era of declining student enrollment begs an explanation.

Several come to mind.

A medical school faculty position may seem to many to offer a saner haven to some when contrasted with the rough and tumble risks of private practice.

The high technology in tertiary care centers clearly demands more expertise and a greater number of managers of the very ill patients found in most medical centers. For example, reading echocardiograms is virtually a full-time job in most teaching centers.

Many medical centers are gearing up to be a regional resource for the most sophisticated care and procedures. This obviously requires more people.

A faculty position in the past was a line-item budgeted position to be filled by an individual who was on a career track and required to demonstrate excellence in teaching, research and patient care to advance up the academic ladder. That choice continues to exist.

In addition, most medical schools may now employ individuals who are interested in teaching and patient care, but have no burning desire to contribute heavily to the body of research in their field. Basically, they pay their own way through patient care activities. They must meet certain minimum academic standards, although not as rigorous as those defined for the research-oriented career track position.

Finally, as the community fills with competent, well-trained specialists, teaching centers are in a unique position of having to compete with the physicians they trained. In many instances this involves employing specialists who can provide services at least the equal of those found in the community.

Thus, this peculiar trend of increasing full-time faculty in medical schools with a falling student enrollment will probably continue, at least for a while. —DZM

Subjects For 1987 Mid-Winter Clinical Conference Session

Depression And Suicide, Pregnancy In Adolescence

"Problems of Adolescence" will be the discussion subject for the Saturday morning, January 24, session of the 20th Mid-Winter Clinical Conference.

Two Huntington doctors, Johnnie L. Gallemore and David Charles, will speak on "Depression and Suicide" and "Adolescent Pregnancy," respectively. A third speaker, to be announced, will discuss substance abuse.

Dr. John P. MacCallum, Charleston psychiatrist, will be moderator and will present an overview of the session.

The annual CME conference will be held January 23-25 at the Charleston Marriott under the sponsorship of WVSMA, Marshall University and West Virginia University schools of medicine, and Charleston Area Medical Center (CAMC).

Scientific sessions will begin Friday afternoon, January 23 (opening of conference) and end at noon on Sunday. Other session general discussion areas will be "Control of Chronic Pain," Friday afternoon; "Concerns in Geriatrics," Saturday afternoon, and "Ethical Dilemmas for the 1980s and Beyond," Sunday morning.

The Friday evening Physicians' Session will focus on the impaired physician and the WVSMA's Judicial Commission, which has final authority in matters pertaining to ethics, grievances and physician discipline.

"Foods for Healthy Living" will be the subject of the concurrent Friday evening Public Session (see story accompanying this article).

Psychiatry Chairman at MU

Doctor Gallemore is Professor and Chairman, Department of Psychiatry at MU, and Acting Chief, Psychiatry Service, Huntington Veterans Administration Medical Center. He came to MU in 1982 from East Tennessee State University where he was Professor and Chairman, Department of Psychiatry and Behavioral Sciences.

John P. MacCallum, M. D.

Doctor Gallemore was a Site Visitor for the Psychiatry Education Review Committee, National Institute of Mental Health, in 1979-81, and was Examiner for the American Board of Psychiatry and Neurology, Part II Examinations, in Atlanta in January, 1980.

He is a member of the Prison Health Task Force, State of West Virginia.

Doctor Gallemore was graduated from Emory College in Atlanta, received his M. D. degree in 1964 from Emory University School of Medicine, and a J. D. degree in 1974 from Duke University School of Law. He received his graduate medical training at Duke.

Charleston Psychiatrist

Doctor MacCallum, who has been in private practice in child and adult psychiatry in Charleston since 1982, is Clinical Assistant Professor, Department of Behavioral Medicine and Psychiatry, WVU, and a member of the Board of Trustees of Boone Memorial Hospital in Madison.

Doctor MacCallum, who holds a master's degree in English from WVU, received his undergraduate degree from the University of Virginia, and his M. D. degree in 1974 from WVU. He completed his postgraduate training at WVU Charleston Division.

Before starting private practice, he was Director of Specialized Services, Shawnee Hills Community Mental Health/Mental Retardation Center, Inc., in Charleston in 1979-80, and Medical Director, Logan-Mingo Area Mental Health, Inc., in Logan in 1980-82.

Education in England

Doctor Charles is Professor and Chairman, MU Department of Obstetrics and Gynecology, and Director of Clinics and Chief of Obstetrics and Gynecology at St. Mary's Hospital in Huntington. He came to MU in 1979 from Memorial University of Newfoundland, St. John's, Newfoundland, Canada, where he was Professor and Chairman of Obstetrics and Gynecology.

Doctor Charles received his medical degree in 1949 from St. Bartholomew's Hospital Medical College, University of London, England. He

received his postgraduate training, completed periods of private and group practice, and held various medical appointments in England and Scotland through 1963.

In 1964, Doctor Charles joined the obstetrics and gynecology staff at the University of Pittsburgh, and later held teaching posts at Boston University and Harvard Medical School before going to Newfoundland in 1974.

He was President of the Infectious Disease Society for Obstetrics and Gynecology in 1977-80, and is on the editorial boards of *Journal of Reproductive Medicine* and *The Infectious and Medical Disease Letters for Obstetrics and Gynecology*.

Doctor Charles is the author or co-author of more than 150 articles and book chapters.

Speakers and topics announced previously are:

Saturday Afternoon ("Concerns in Geriatrics")—"Alzheimer's Disease," Albert F. Heck, M. D., Professor of Neurology, WVU Charleston Division; staff neurologist, CAMC, and Director, Neurological Training, WVU Charleston Division; "Update on Immunization of the Elderly," Maurice A. Mufson, M. D. (also moderator), MU Professor and Chairman of Medicine, and Professor of Microbiology; "Exercise, Nutrition and Mobility," Joye A. Martin, M. D., MU Associate Professor and Chief, Section of Geriatric Medicine, Department of Family and Community Health;

"Polypharmacy in the Elderly," Shirley Neitch, M. D., MU Assistant Professor of Medicine and Chief, Section of Geriatrics, Department of Medicine, and "Depression in the Elderly," Allen Kayser, Jr., M. D., MU Assistant Professor of Psychiatry;

Sunday Morning ("Ethical Dilemmas for the 1980's and Beyond")—Warren Point, M. D., Assistant Chairman, Department of Medicine, WVU Medical School; Chairman, Department of Medicine, CAMC, and Professor and Director, Department of Medicine, WVU Charleston Division; and Eugene A. Stead, Jr., M. D., Professor Emeritus, Florence McAlister Professor of Medicine and Chairman, Department of Medicine, Duke University.

Dr. David Z. Morgan, Associate Dean, WVU School of Medicine, Morgantown, will moderate the Sunday morning session, which will cover code issues, organ donations and the comatose patient.

Program Committee

Members of the Program Committee are Drs. William O. McMillan, Jr., Charleston, Chairman; Doctor Mufson; Joseph T. Skaggs, Charleston; Richard G. Starr, Beckley; John W. Traubert, Morgantown, and C. Carl Tully, South Charleston.

Foods For Healthy Living Lunch, Panel Planned

"Foods for Healthy Living" will be the subject of the Friday evening, January 23, Public Session during the Mid-Winter Clinical Conference.

The program, a panel discussion followed by a reception, will be previewed by a "Foods for Healthy Living" luncheon, co-sponsored by the Auxiliary, at 11:30 A. M. Friday.

Frances C. Wilkinson, M.S., R.D., will be a member of the Friday evening panel, and also will be moderator of the luncheon program.

Panel moderator will be Ronald L. Cleavenger, M. D., Assistant Professor, Department of Family Practice, West Virginia University School of Medicine, Morgantown. One of Doctor Cleavenger's research projects has been to assess cardiovascular disease risk factors and the dietary profile of college students. He also gives a pharmacy lecture on "Nutritional Excesses and Deficiencies — Clinical Manifestations."

The third panelist will be an exercise physiologist, Jack Taylor, M.S., Director of Corporate Health, Charleston Area Medical Center.

Mrs. Wilkinson, current President of the West Virginia Dietetic Association, for the past nine years has been with the West Virginia Department of Health as the Nutrition Education Coordinator for the Women, Infants and Children (WIC) Program. The program is for low-income, pregnant and breastfeeding women, infants and children up to age five.

Frances C. Wilkinson, R.D.

She also has worked as a part-time clinical dietitian, a weight loss counselor with Weight Watchers International, Inc., and an instructor in nutrition for nursing students at West Virginia State College.

The luncheon will feature cooking demonstrator Judi Grigoraci of Charleston. One hundred luncheon tickets will be available for physicians and spouses.

1987 CPT Manual

The AMA is now filling orders for *Current Procedural Terminology* (CPT) *1987*. The discounted price for AMA members is $24; the price for all others is $30.

MasterCard and Visa orders may be made on AMA's toll-free number, 1-800-621-8335. Other orders (with check enclosed) should be directed to Book & Pamphlet Fulfillment, AMA, P.O. Box 10946, Chicago, IL 60610-0946, noting the publication number, OP 341/7.

Delegates, Others Going To AMA House Meeting In Las Vegas

The 1986 interim meeting of the American Medical Association's House of Delegates will be held December 7-10 in Las Vegas.

WVSMA's two Delegates to the AMA House are Drs. John B. Markey of Charleston and Harry S. Weeks, Jr., of Wheeling, with Drs. Joseph A. Smith of Dunbar and Stephen D. Ward of Wheeling as Alternate Delegates.

Dr. Frank J. Holroyd of Princeton, who served for 32 years as a West Virginia AMA Delegate, is Honorary AMA Delegate.

The AMA House is composed of representatives from state medical associations, national medical specialty societies, resident physicians, medical students, hospital medical staff sections, medical corps of the U. S. military services, U. S. Public Health Services, and Veterans Administration.

Dr. John J. Coury, Jr., of Port Huron, Michigan, is AMA President.

Doctor Weeks will serve on the convention Rules and Order of Business Committee, and Dr. Albert J. Osbahr of Huntington is the Resident representative on the AMA Council on Medical Service.

Edwin Meese III, U. S. Attorney General, will address the AMA House at an early opening session Sunday, December 7.

Others attending will include WVSMA President Charles E. Turner, M. D., and his wife, Linda Turner, President of the State Auxiliary; Dr. Cordell A. DeLaPena, President Elect; Dr. David Z. Morgan, Council Chairman, and Executive Director Merwyn G. Scholten.

Addendum: In action taken during the Fall Meeting of WVSMA Council November 16 as this issue of *The Journal* was going to press, Council appointed the following additional AMA Delegate and Alternate Delegates to attend the June, 1987, AMA meeting only: Drs. Joseph A. Smith, Dunbar, a present AMA Alternate Delegate, as the third Delegate; and Stephen D. Ward, Wheeling (the other present Alternate Delegate): David Z. Morgan, Morgantown, and Cordell A. DeLaPena, Clarksburg, Alternate Delegates.

As noted above, the third Delegate and Alternate will be elected officially at the August, 1987, WVSMA Annual Meeting.

WVSMA To Have Three AMA Delegates In 1987

WVSMA's AMA delegation will increase from two to three in 1987 for the first time in the history of the State Association because of increased membership from West Virginia in the AMA.

The state's AMA membership recently passed the 2,000-mark, qualifying West Virginia for the third delegate. Included in the state AMA membership count are physicians who join the AMA through WVSMA, those who join the AMA directly, and resident and student AMA members.

Council will be appointing the third AMA Delegate and Alternate to serve until an official election can be held during the 1987 WVSMA Annual Meeting next August. The first meeting of the AMA House is held annually in June.

One AMA delegate is designated for each 1,000 AMA members or a fraction thereof in a state (no minimum membership required for the first delegate). "For years, we have hovered just shy of the 2,000-member mark, and we are pleased that we have finally passed that mark, qualifying us for another delegate," Scholten commented. The official AMA count of AMA members in West Virginia as of October 31 was 2,030.

Poetry Corner

On the Brink of No Return

Gradually each breath was an effort,
Garnering all ribs and muscles to put forth,
The mouth opened wide and the tongue out,
Struggling to suck air to keep up with life's bout.

Finally each breath was faster and harder,
The mouth dry, the tongue limp and the breathing louder,
The skin was also clammy and blue,
Oblivion filled the brain and life was fading incredible but true.

With a little sedation and quick action,
A hole was made in the windpipe for salvation,
Ample oxygen was piped into the windpipe hole,
Suddenly the skin started to pink and dry including the sole!

Through a scope the tumor occluding the windpipe was spotted,
Using the CO_2 laser beam the cherry-like growth was melted,
Thus life was brought back from the brink of no return,
"Thank you, you saved my life" was the grateful groan.

– Romeo Y. Lim, M.D.
Charleston

We request physician contributions to *Poetry Corner*. Submissions should be addressed to Stephen D. Ward, M. D., Editor, *The West Virginia Medical Journal*, Box 4106, Charleston, West Virginia 25364.

Gastrointestinal Meeting

The West Virginia Gastrointestinal Society will hold its annual symposium and ski weekend February 7-8, 1987, at the Canaan Valley Resort and Conference Center, Davis. Featured discussion topics will be pancreatitis, hepatitis and biliary tract neoplasms. Invited speakers will include Dr. John Cameron, Professor of Surgery, Johns Hopkins University, and faculty from West Virginia University and Marshall University.

For further information call 304-429-6741 (Ext. 2275).

Continuing Education Activities

Here are the continuing medical education activities listed primarily by the Marshall University and West Virginia University Schools of Medicine for part of 1986 and 1987, as compiled by Ernest W. Chick, M. D., MU Director of Continuing Medical Education; Robert E. Kristofco, WVU Assistant to the Dean/Continuing Medical Education; J. Zeb Wright, Ph.D., Director of Continuing Education Outreach and Community Affairs, WVU Charleston Division; and Sharon Hall, Director of Continuing Education, Charleston Area Medical Center (also in charge of WVU Charleston Division on-campus CME). The schedule is presented as a convenience for physicians in planning their continuing education program. (Other national, state and district medical meetings are listed in the *Medical Meetings* Department of *The Journal.)*

The program is tentative and subject to change. It should be noted that weekly conferences also are held on the WVU Morgantown, Charleston and Wheeling campuses. Further information about CME activities may be obtained by calling Doctor Chick at (304) 526-0515; Kristofco, (304) 293-3937; Wright, (304) 347-1243; and Hall, (304) 348-9580.

Marshall University

Dec. 6, Huntington, 1986 Sports Medicine Conference

West Virginia University

Dec. 11, Charleston, Newer Treatments for Lung Cancer

1987

Feb. 22-25, Snowshoe, Rheumatology

March 13-14, Morgantown, Oncology Update '87

April 3-4, Morgantown, Recent Advances in the Diagnosis & Management of Liver Disease

Regularly Scheduled Continuing Education Outreach Programs from WVU Medical Center-Charleston Division/CAMC

Beckley, Southern W. Va. Clinic — 4th Thursday, 5:30 P. M., "Update Radiation Therapy," Steven Jubelirer, M. D. (held in Dec. on first Thursday, Dec. 4)

Bluefield, Bluefield Community Hospital, First-Floor Conference Room, 3rd Thursday, Noon-2 P. M. — Dec.-Feb. (vacation)

Cabin Creek, Cabin Creek Medical Center, Dawes, 2nd Thursday, 8-10 A. M. — Dec. 11, "Management of Acute Myocardial Infarction in 1987," William Sims, M. D.

Gassaway, Braxton Co. Memorial Hospital, 1st Wednesday, 7-9 P. M. — Dec. 3, "Allergy & Immunology," L. Blair Thrush, M. D.

Greenbrier, Library, Greenbrier Clinic, 3rd Tuesday, 4-5 P. M. — Dec. 16, "Noninvasive Cardiac Imaging," William Carter, M. D., & Donald Lilly, M. D.

Madison, Boone Memorial Hospital, 2nd Tuesday, 7-9 P. M. — Dec. 9, "Early Warning in the Diagnosis of AIDS," Patrick Robinson, M. D.

Oak Hill, Plateau Medical Center (Oyler Exit, N 19) 4th Tuesday, 7-9 P. M. — Dec. 16 (vacation)

Summersville, Summersville Memorial Hospital, 1st Tuesday, 6:30-8:30 P. M. — Dec. 2, "Update on Treatment of Comon Cancers," David Lee, M. D.

Jan.-Feb. (vacation)

Welch, Stevens Clinic Hospital, 3rd Wednesday, 12 Noon-2 P. M. — Dec.-Feb. (vacation)

Whitesville, Raleigh-Boone Medical Center, 1th Wednesday, 11 A. M.-1 P. M. — Dec.-Feb. (vacation)

Williamson, Williamson Memorial Hospital, 1st Thursday, 6:30-8:30 P. M. — Dec.-Feb. (vacation)

Medical Meetings

Dec. 6-7—Am. Society of Hematology, San Francisco.

Dec. 6-7—National Kidney Foundation, Washington, DC.

Dec. 7-10—Interim Meeting, AMA House of Delegates, Las Vegas.

1987

Jan. 15-17—Neurosurgical Society of the Virginias, Hot Springs, Va.

Jan. 22—Finance Committee, WVAAFP, Charleston.

Jan. 22-27—Am. Academy of Orthopaedic Surgeons, San Francisco.
Association, Los Angeles.

Jan. 23—Board Meeting, Family Medicine Foundation of WV, Charleston.

Jan. 23—Board Meeting, WVAAFP, Charleston.

Jan. 23-25—20th Mid-Winter Clinical Conference, Charleston.

Feb. 7-8—WV Gastrointestinal Society, Canaan Valley Resort & Conference Center, Davis.

Feb. 19-22—Am. College of Nuclear Physicians, San Francisco.

Feb. 22-27—Am. College of Medical Imaging, Lake Tahoe, Nev.

Mar. 3-6—Am. Cancer Society, New York.

Mar. 29-April 3—Am. Assoc. of Pathologists, Washington, DC.

April 10-12—WVAAFP Scientific Assembly, Charleston.

April 26-29—WV Academy of Ophthalmology 40th Annual National Spring Meeting, White Sulphur Springs.

May 19—Am. Medical Student Assoc., New Orleans.

Aug. 8-12—120th Annual Meeting, WV State Medical Assoc., White Sulphur Springs.

Sept. 14-17—AAFP, San Francisco.

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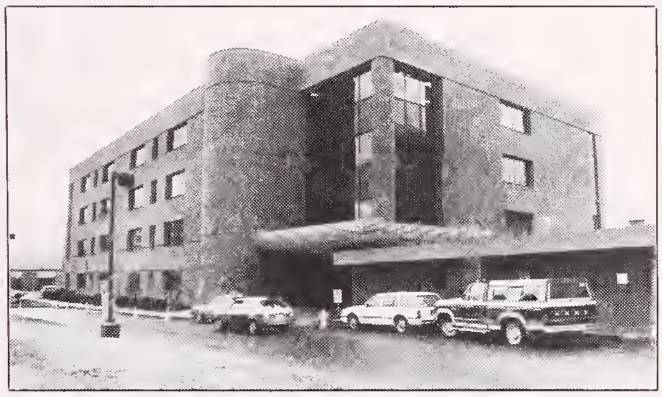

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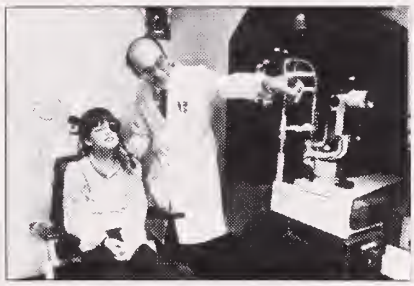

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WVU Medical Center News

West Virginia University

Children's Cancer Specialist New

Compiled from material furnished by the Medical Center News Service, Morgantown, W. Va.

Cancer in children is rare, according to WVU's new pediatric hematologist and oncologist A. Kim Ritchey, who estimates there are probably 60-70 cases in the state per year.

Since that's of little consolation to youngsters who have it, or to their families and friends, Doctor Ritchey's immediate objective as Associate Professor since May in the Department of Pediatrics and Chief of its Section of Pediatric Hematology-Oncology has been to get patient care at "peak excellence" in the shortest time possible.

His approaches include "trying to inform people around the state, who might not know, that we are here to serve their needs."

"Treatment of cancer involves multidisciplinary care," Doctor Ritchey said, adding he hopes the number who will participate at WVU will increase. Already he is collaborating in studies with psychologists Andrew Bradlyn and Carol Harris, who have a special interest in children's and families' behaviors and emotional reactions concerning cancer. He also expects to recruit another physician specialist — one who is particularly research oriented.

Leukemia Most Common

Just as it is in other states, leukemia is the most common cancer in children in West Virginia. WVU is an affiliate member of the Pediatric Oncology Group (POG), a National Cancer Institute-funded partnership of children's cancer centers. Participation gives the Medical Center access to the most up-to-date treatment protocols and chemotherapy drugs for leukemia as well as other cancer in children.

Co-investigators in the POG are Doctor Ritchey and Kenneth Starling. Doctor Starling is Professor and Head of Pediatrics at the Charleston Division.

Doctor Ritchey is also working to improve care for children with nonmalignant blood diseases. For example, for his patients at WVU who have idiopathic thrombocytopenic purpura (ITP), he will use a new treatment he began at Yale University School of Medicine and continues to collaborate on with a colleague there.

In ITP, the most common blood disease after iron deficiency anemia, the platelet count is low. Most likely the result of an earlier viral infection, the condition usually goes away but can produce serious, even fatal, bleeding.

"What we are doing is giving a medication that causes the platelet count to rise faster — one week or less — than with the usual treatment," he said.

A similar steroid drug is used in each instance, yet with the larger doses given over a three-day period, Doctor Ritchey and his research colleague have seen no significant side effects. In three of the four patients who responded, the platelet count reached normal in three days. The fourth attained a normal count in a week.

Dr. John V. Linberg, Associate Professor of Ophthalmology and oculoplastic surgeon at WVU, discusses eye surgery with Eric Arturo Delvalle, the President of Panama, and Oliver Foot, Executive Director of Project ORBIS. Linberg recently made his third trip on ORBIS, a "flying eye hospital" which promotes the exchange of surgical skills between local ophthalmologists of various countries and visiting surgeons. President Delvalle visited the airplane when it landed in Panama City where the project provided technical training and assistance to set up a national eye bank. Doctor Linberg's previous trips on ORBIS were to Tunisia in 1984 and to Iraq in February of this year.

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MEMBERS FDIC

MU School Of Medicine News

Compiled from material furnished by the Office of University Relations, Marshall University.

1986 Meet-The-Scholar 'Rep' Doctor Mufson

Dr. Maurice A. Mufson, Chairman of the Department of Medicine, has been chosen by fellow faculty members as their Fall 1986 representative in the school's Meet-the-Scholar Program, President Dale F. Nitzschke has announced.

The program honors academic scholarship and research, and promotes interaction between Marshall scholars and the Tri-State community.

"Doctor Mufson has brought great distinction to Marshall through his very highly regarded research, which has been presented at numerous international meetings and in some of the world's most prestigious medical publications," Nitzschke said. "He also has contributed a great deal through his leadership as founding Chairman of our Department of Medicine."

The selection committee was impressed by Doctor Mufson's continuing followup on previous research as he "forges ahead" in new areas, said Chairman Christopher Dolmetsch.

"Doctor Mufson is already preeminent in research on pneumococcal pneumonia and apparently has the longest research study followup in the field of viral pneumonia," he said. "He holds several hundred thousand dollars in grants and research awards, and now is working on a virus which is a leading cause of pneumonia in children."

Since coming to Marshall in 1976 as Chairman of Medicine, Doctor Mufson also has served as Acting Associate Chief of Staff for Research at the Huntington Veterans Administration Medical Center.

His current research focuses on respiratory syncytial virus, which is especially dangerous to young children and the elderly. So far, no vaccine has been developed which adequately prevents infection by the virus.

Using techniques acquired on a recent sabbatical at the Karolinska Institute in Sweden, Doctor Mufson is studying RS virus samples collected in Huntington in recent years to find out more about the virus structure.

He also continues work on a project studying how long antibody protection from pneumonia vaccine lasts. A manuscript reporting 10-year follow-up findings has been accepted for publication, and he recently returned to Chicago to perform additional tests.

Doctor Mufson is President of the Cabell County Medical Society and Chairman of the 1987 Annual Meeting Program Committee of the West Virginia State Medical Association.

Regents Give Campus MRI Facility Preliminary Nod

The West Virginia Board of Regents gave preliminary approval at its November meeting to a Marshall University request which would allow a magnetic resonance imaging facility to be located on the Marshall campus.

The board gave conceptual approval to the proposal, allowing Marshall to proceed with developing a lease and agreement which would lease land to Tri-State MRI, a joint venture of St. Mary's and Cabell Huntington hospitals.

When a lease agreement is finalized, Marshall will take it to the Board of Regents or its executive committe for final approval.

There would be no cost to Marshall or the state. The hospitals would buy the MRI and construct the building to house it.

"This will provide an unparalleled opportunity for exposing our medical students to the most modern diagnostic techniques," said President Nitzschke.

Hoffman Library Campaign For $250,000 Succeeds

Marshall held a special ceremony November 2 to mark the successful completion of a campaign to raise $250,000 to provide an endowment for the Dr. Charles A. Hoffman Library of Medical Sciences.

Doctor Hoffman was a Huntington urologist who, in 1975, realized the need for such a facility and pledged $125,000 toward its establishment. He also donated all of his professional papers and other memorabilia to the library.

Since that time, the Hoffman Library of Medical Sciences has acquired approximately 1,000 volumes pertaining to the history of the medical and allied health fields. According to Marshall University Libraries Director Kenneth T. Slack, many of the volumes are rare and exceptional works.

"The Hoffman Library is an excellent collection on the history of medicine," said Slack. "When Doctor Hoffman first conceived of such a library there were no others like it in the region. Scholars had to go to Chicago to find adequate research materials."

Doctor Hoffman served as President of the American Medical Association in 1973-74 and was prominent in a number of professional organizations. He also served as President of the American Urological Association, the West Virginia State Medical Association and the American Association of Clinical Urologists.

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County Societies

McDOWELL

The McDowell County Medical Society met October 8 in Welch at the Bonanza Steak House.

Dr. John Haught, Beckley gastroenterologist, was the guest speaker. His subject was up-date of peptic ulcer disease.

Doctor Haught reviewed the general treatment of peptic ulcer, and concentrated on the use of recent drugs—sucralfate, ranitidine and cimetidine.

Following Doctor Haught's talk, spouses assembled separately to organize the Auxiliary for the coming year.—John Cook, M. D. (subsituting for Barbara A. Fenton, M. D., Secretary)

MINGO

The Mingo County Medical Society met October 8 at Williamson Memorial Hospital.

Dr. Bapuji Narra of Williamson talked on "Use of Mammorgraphy in Breast Cancer Detection." — Manolo Tampoya, M. D., Secretary/Treasurer.

TYGART'S VALLEY

Dr. Stanley Kandzari delivered the 22nd annual Broaddus Hospital Memorial Lecture in conjunction with the Society's meeting October 16 at the Hospital in Philippi.

Doctor Kandzari, Professor of Urology at West Virginia University School of Medicine in Morgantown, spoke on the treatment of localized carcinoma of the prostate with interstitial Iodine-125.

The 1986 lecture was in memory of the late Dr. Franklin B. Murphy of Philippi, who died in May, 1985.

A round of applause was accorded to Dr. Charles R. Arnett of Philippi, who received the State Medical Association's Physician Award for Community Service during the WVSMA's Annual Meeting in August.—Michael M. Stump, M. D., Secretary.

WESTERN

Dr. Bela Manyam, Associate Professor of Medicine, University of Illinois, was the guest speaker for the meeting of the Western Medical Society October 14 in Spencer at Roane General Hospital.

Doctor Manyam gave a very detailed report of the history, pathology and treatment of Parkinson's disease. —Ali H. Morad, M. D., Secretary.

Electromyography and Nerve Conduction Studies.

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Obituaries

RAY E. BURGER, M. D.

Dr. Ray E. Burger of Welch died October 26 in a hospital there. He was 74.

A surgeon, Doctor Burger had practiced in Welch since 1944.

He was a former President of the West Virginia Chapter, American College of Surgeons; a past President of the McDowell County Medical Society; a Diplomate of the American Board of Surgery, and a member of the American Board of Surgeons.

Born in Craig's Creek, Virginia, Doctor Burger received his undergraduate and M. D. (1937) degrees, graduate medical training, and a M. S. degree (1941) from the University of Virginia.

He was a member of the McDowell County Medical Society and the West Virginia State Medical Association.

Surviving are three sons, Ray Burger, Jr., Franktown, Virginia; Robert C. Burger, Columbia, Missouri, and Richard L. Burger, Roanoke, Virginia; one brother, Samuel H. Burger, Vienna; three sisters, Mrs. J. H. Laing, Lewisburg; Mrs. Louise Guyer, Charleston, and Mrs. Helen Bailey, North Ridgeville, Ohio.

ROLAND J. VIGER, M D.

Word recently was received by *The Journal* of the death of Dr. Roland J. Viger of Vero Beach, Florida, formerly of Huntington, on May 3. He was 81.

Doctor Viger, an ophthalmologist, was born in Lawrence, Massachusetts.

He received his M. D. degree in 1933 from McGill University, interned at Montreal General Hospital and New York Hospital (Cornell), and took his residency at the Massachusetts Eye and Ear Infirmary.

Doctor Viger was an honorary member of the Cabell County Medical Society, West Virginia State Medical Association and American Medical Association.

Surviving is the widow. (Other survivors, if any, were not reported.)

New Members

The following physicians were welcomed in October as new members of the West Virginia State Medical Association:

Ohio:

Armando Araujo, M. D., 401 Winter Avenue, Apartment 2, Wheeling 26003, general practice

David Bowman, M. D., 106 Professional Center I, Medical Park, Wheeling 26003, internal medicine/ gastroenterology

C. David Burkland, M. D., R. D. 2, Box 339, Dixon Run Road, Triadelphia 26059, emergency medicine

Ramon Fagundo, M. D., 5 Hazlett Court, Wheeling 26003, emergency medicine

Matthew P. Fox, M. D., 25 Park Road, Wheeling 26003, family practice

Rex Lasure, M. D., Rt. 4, Box 95B, Wheeling 26003, family practice

Emmanuel Munoz, M. D., 139 Bello Verde, Wheeling 26003, general practice

James A. Oates, M. D., 2513 Warwood Avenue, Wheeling 26003, emergency medicine

Rodolfo T. Orencia, M. D., Wheeling Hospital, Wheeling 26003, general practice

Banman Rasekhy, M. D., 89 Southgate Manor, St. Clairsville, Ohio 43925, internal medicine

Janice C. Sobray, M. D., R. D. #1, 320 Longvue Acres, Wheeling 26003, family practice

Michael B. Voorhees, M. D., Family Health Center, Medical Park, Wheeling 26003, family practice

Timothy D. Weyrich, M. D., Overlook Condos C-110, 1810 National Road, Wheeling 26003

Residents:

Raymond A. Bannan, M. D., Family Practice Center, Wheeling 26003

Craig R. Bardell, M. D., 25 Economy Avenue, Wheeling 26003

Richard E. Behymer, M. D., Medical Park, Wheeling 26003

Garry B. Bowden, M. D., Family Health Center, Medical Park, Wheeling 26003

Michael A. Fortunato, M. D., Medical Park, Wheeling 26003

Edward Jardini, M. D., Family Health Center, Medical Park, Wheeling 26003

Brian W. MacAulay, M. D., Family Health Center, Medical Park, Wheeling 26003

James C. Marbach, M. D., Family Health Center, Medical Park, Wheeling 26003

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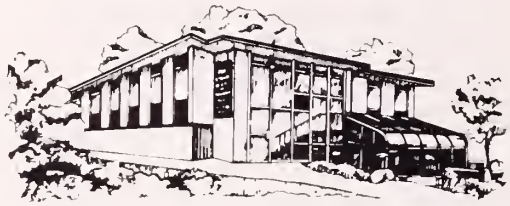

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ranitidine HCl/Glaxo 300 mg tablets

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Side-effects profile comparable to ZANTAC 150 mg b.i.d.[1-3]

Headache—sometimes severe—has been reported. Rare effects on the CNS, cardiovascular, GI, hepatic, and integumental systems have been observed, as well as rare cases of hypersensitivity reactions. See ADVERSE REACTIONS section of Brief Summary of Product Information before prescribing.

No significant interference with the hepatic cytochrome P-450 enzyme system at recommended doses

ZANTAC 300 mg h.s. had no significant drug interactions with theophylline or warfarin. The bioavailability of certain medications whose absorption is dependent on a low gastric pH may be altered when ZANTAC or other medications which decrease gastric acidity are administered.

**It is not known exactly how much acid inhibition is needed to heal ulcers.*

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See next page for references and Brief Summary of Product Information.

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ZANTAC® 150 Tablets
(ranitidine hydrochloride)
ZANTAC® 300 Tablets
(ranitidine hydrochloride)

BRIEF SUMMARY OF PRODUCT INFORMATION

See complete product information before prescribing. The following is a brief summary.

INDICATIONS AND USAGE: ZANTAC® is indicated in:
1. Short-term treatment of **active duodenal ulcer**. Most patients heal within four weeks.
2. **Maintenance therapy** for duodenal ulcer patients at reduced dosage after healing of acute ulcers.
3. The treatment of **pathological hypersecretory conditions** (eg, Zollinger-Ellison syndrome and systemic mastocytosis).
4. Short-term treatment of **active, benign gastric ulcer**. Most patients heal within six weeks and the usefulness of further treatment has not been demonstrated.
5. Treatment of **gastroesophageal reflux disease (GERD)**. Symptomatic relief commonly occurs within one or two weeks after starting therapy. Therapy for longer than six weeks has not been studied.

In active duodenal ulcer; active, benign gastric ulcer; hypersecretory states; and GERD, concomitant antacids should be given as needed for relief of pain.

CONTRAINDICATIONS: ZANTAC® is contraindicated for patients known to have hypersensitivity to the drug.

PRECAUTIONS: General: 1. Symptomatic response to ZANTAC® therapy does not preclude the presence of gastric malignancy. 2. Since ZANTAC is excreted primarily by the kidney, dosage should be adjusted in patients with impaired renal function. Caution should be observed in patients with hepatic dysfunction since ZANTAC is metabolized in the liver.

Laboratory Tests: False-positive tests for urine protein with Multistix® may occur during ZANTAC therapy, and therefore testing with sulfosalicylic acid is recommended.

Drug Interactions: Although ZANTAC has been reported to bind weakly to cytochrome P-450 in vitro, recommended doses of the drug do not inhibit the action of the cytochrome P-450-linked oxygenase enzymes in the liver. However, there have been isolated reports of drug interactions which suggest that ZANTAC may affect the bioavailability of certain drugs by some mechanism as yet unidentified (eg, a pH-dependent effect on absorption or a change in volume of distribution).

Carcinogenesis, Mutagenesis, Impairment of Fertility: There was no indication of tumorigenic or carcinogenic effects in lifespan studies in mice and rats at doses up to 2,000 mg/kg/day.

Ranitidine was not mutagenic in standard bacterial tests (*Salmonella, E coli*) for mutagenicity at concentrations up to the maximum recommended for these assays.

In a dominant lethal assay, a single oral dose of 1,000 mg/kg to male rats was without effect on the outcome of two matings per week for the next nine weeks.

Pregnancy: ***Teratogenic Effects: Pregnancy Category B:*** Reproduction studies have been performed in rats and rabbits at doses up to 160 times the human dose and have revealed no evidence of impaired fertility or harm to the fetus due to ZANTAC. There are, however, no adequate and well-controlled studies in pregnant women. Because animal reproduction studies are not always predictive of human response, this drug should be used during pregnancy only if clearly needed.

Nursing Mothers: ZANTAC is secreted in human milk. Caution should be exercised when ZANTAC is administered to a nursing mother.

Pediatric Use: Safety and effectiveness in children have not been established.

Use in Elderly Patients: Ulcer healing rates in elderly patients (65 to 82 years of age) were no different from those in younger age groups. The incidence rates for adverse events and laboratory abnormalities were also not different from those seen in other age groups.

ADVERSE REACTIONS: The following have been reported as events in clinical trials or in the routine management of patients treated with oral ZANTAC®. The relationship to ZANTAC therapy has been unclear in many cases. Headache, sometimes severe, seems to be related to ZANTAC administration.

Central Nervous System: Rarely, malaise, dizziness, somnolence, insomnia, and vertigo. Rare cases of reversible mental confusion, agitation, depression, and hallucinations have been reported, predominantly in severely ill elderly patients.

Cardiovascular: Rare reports of tachycardia, bradycardia, and premature ventricular beats.

Gastrointestinal: Constipation, diarrhea, nausea/vomiting, and abdominal discomfort/pain.

Hepatic: In normal volunteers, SGPT values were increased to at least twice the pretreatment levels in 6 of 12 subjects receiving 100 mg qid IV for seven days, and in 4 of 24 subjects receiving 50 mg qid IV for five days. With oral administration there have been occasional reports of reversible hepatitis, hepatocellular or hepatocanalicular or mixed, with or without jaundice.

Musculoskeletal: Rare reports of arthralgias.

Hematologic: Rare reports of reversible leukopenia, granulocytopenia, thrombocytopenia, and pancytopenia.

Endocrine: Controlled studies in animals and man have shown no stimulation of any pituitary hormone by ZANTAC and no antiandrogenic activity, and cimetidine-induced gynecomastia and impotence in hypersecretory patients have resolved when ZANTAC has been substituted. However, occasional cases of gynecomastia, impotence, and loss of libido have been reported in male patients receiving ZANTAC, but the incidence did not differ from that in the general population.

Integumental: Rash, including rare cases suggestive of mild erythema multiforme, and, rarely, alopecia.

Other: Rare cases of hypersensitivity reactions (eg, bronchospasm, fever, rash, eosinophilia) and small increases in serum creatinine.

DOSAGE AND ADMINISTRATION: Active Duodenal Ulcer: The current recommended adult oral dosage is 150 mg twice daily. An alternate dosage of 300 mg once daily at bedtime can be used for patients in whom dosing convenience is important. The advantages of one treatment regimen compared to the other in a particular patient population have yet to be demonstrated.

Maintenance Therapy: The current recommended adult oral dosage is 150 mg at bedtime.

Pathological Hypersecretory Conditions (such as Zollinger-Ellison Syndrome): The current recommended adult oral dosage is 150 mg twice a day. In some patients it may be necessary to administer ZANTAC® 150-mg doses more frequently. Doses should be adjusted to individual patient needs, and should continue as long as clinically indicated. Doses up to 6 g/day have been employed in patients with severe disease.

Benign Gastric Ulcer: The current recommended adult oral dosage is 150 mg twice a day.

GERD: The current recommended adult oral dosage is 150 mg twice a day.

See full prescribing information for dosage adjustment for patients with impaired renal function.

HOW SUPPLIED: ZANTAC® 300 Tablets (ranitidine hydrochloride equivalent to 300 mg of ranitidine) are yellow, capsule-shaped tablets embossed with "ZANTAC 300" on one side and "Glaxo" on the other. They are available in bottles of 30 (NDC 0173-0393-40) and unit dose packs of 100 tablets (NDC 0173-0393-47).

ZANTAC® 150 Tablets (ranitidine hydrochloride equivalent to 150 mg of ranitidine) are white tablets embossed with "ZANTAC 150" on one side and "Glaxo" on the other. They are available in bottles of 60 tablets (NDC 0173-0344-42) and unit dose packs of 100 tablets (NDC 0173-0344-47).

Store between 15° and 30°C (59° and 86°F) in a dry place. Protect from light. Replace cap securely after each opening.

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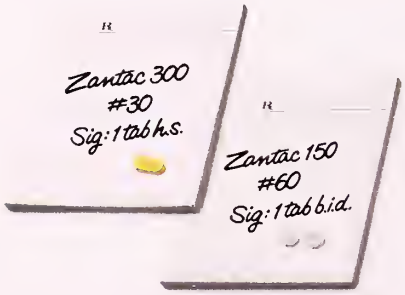

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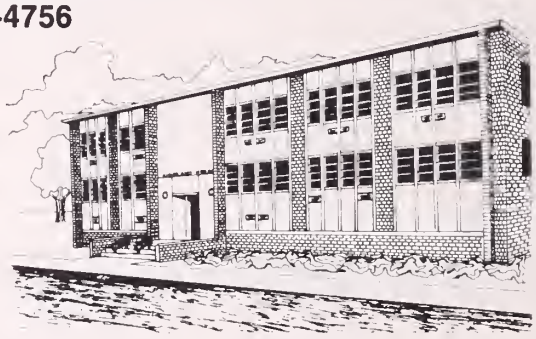

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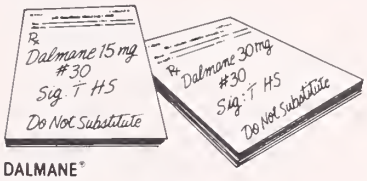

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Contraindications: Known hypersensitivity to flurazepam HCl, pregnancy. Benzodiazepines may cause fetal damage when administered during pregnancy. Several studies suggest an increased risk of congenital malformations associated with benzodiazepine use during the first trimester. Warn patients of the potential risks to the fetus should the possibility of becoming pregnant exist while receiving flurazepam. Instruct patients to discontinue drug prior to becoming pregnant. Consider the possibility of pregnancy prior to instituting therapy.

Warnings: Caution patients about possible combined effects with alcohol and other CNS depressants. An additive effect may occur if alcohol is consumed the day following use for nighttime sedation. This potential may exist for several days following discontinuation. Caution against hazardous occupations requiring complete mental alertness (*e.g.*, operating machinery, driving). Potential impairment of performance of such activities may occur the day following ingestion. Not recommended for use in persons under 15 years of age. Withdrawal symptoms rarely reported; abrupt discontinuation should be avoided with gradual tapering of dosage for those patients on medication for a prolonged period of time. Use caution in administering to addiction-prone individuals or those who might increase dosage.

Precautions: In elderly and debilitated patients, it is recommended that the dosage be limited to 15 mg to reduce risk of oversedation, dizziness, confusion and/or ataxia. Consider potential additive effects with other hypnotics or CNS depressants. Employ usual precautions in severely depressed patients, or in those with latent depression or suicidal tendencies, or in those with impaired renal or hepatic function.

Adverse Reactions: Dizziness, drowsiness, lightheadedness, staggering, ataxia and falling have occurred, particularly in elderly or debilitated patients. Severe sedation, lethargy, disorientation and coma, probably indicative of drug intolerance or overdosage, have been reported. Also reported: headache, heartburn, upset stomach, nausea, vomiting, diarrhea, constipation, GI pain, nervousness, talkativeness, apprehension, irritability, weakness, palpitations, chest pains, body and joint pains and GU complaints. There have also been rare occurrences of leukopenia, granulocytopenia, sweating, flushes, difficulty in focusing, blurred vision, burning eyes, faintness, hypotension, shortness of breath, pruritus, skin rash, dry mouth, bitter taste, excessive salivation, anorexia, euphoria, depression, slurred speech, confusion, restlessness, hallucinations, and elevated SGOT, SGPT, total and direct bilirubins, and alkaline phosphatase, and paradoxical reactions, *e.g.* excitement, stimulation and hyperactivity.

Dosage: Individualize for maximum beneficial effect. *Adults*: 30 mg usual dosage; 15 mg may suffice in some patients. *Elderly or debilitated patients*: 15 mg recommended initially until response is determined.

Supplied: Capsules containing 15 mg or 30 mg flurazepam HCl.

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After more than 15 years of use, it's #1 for sleep that satisfies. Patients are satisfied because they fall asleep fast and stay asleep till morning.[1-8] And *you're* satisfied by the exceptionally wide margin of safety.[7-9] As always, caution patients about driving or drinking alcohol.

Please see adjacent page for references and summary of product information.

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